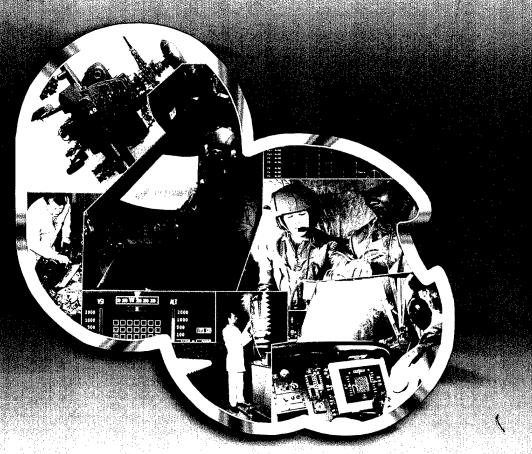
USAARL Report No. 2002-23 Volume II

A Comparison of Visual Fields with Fixed and Moving Fixation Points (Reprint)

by William E. McLean



Aircrew Health and Performance Division

September 2002

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20021029 047

U.S. Army Aeromedical Research Laboratory

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APPENDIX

APPENDIX A

Equipment and Model Numbers

APPENDIX A

EQUIPMENT AND MODEL NUMBERS

- 1. Wavetek Sweep Generator, Model 184
- 2. General Scanning Inc., CCX-100 Scanner Control Amplifier
- 3. General Scanning Inc., G-300 PD Optical Scanner
- 4. Uniblitz Shutter Timing and Drive Unit, Model Number 310B
- 5. Uniblitz Shutter
- 6. Kodak Ektagraphic RA-960 Projector with zoom lens (100 to 150 mm)
- 7. Kodak Ektagraphic AF-3 Projector with zoom lens (102 to 152 mm)
- 8. Digital Voltmeter (4.5 digits)
- 9. Neutral Density Filters (.1 log unit steps)
- 10. Pritchards Spectra Photometer (Model 1980A)
- 11. 500 Watt G.E. Incandescent Light Bulb
- 12. Sample hold electronic devices
- 13. 35 mm spot slides for 4.8 arcmin target
- 14. 180° x 34° screen with 3.05 meters (10 foot) radius primed with Nextel 915 (3 coats) and painted with 202-A10 white (3 coats)
- 15. Switch Box

APPENDIX B

Means, Standard Deviations, Correction Factors, and Calibration Values for Each Subject, Procedures, Meridian, Velocity, and Contrast Value Subject # 2 B.M. Procedure # 1 Contrast 68% (Vertical) 1°= .081 Volts (Horizontal) 1°= .060 Volts Reaction Time= .251 Sec

				270th M	eridian			
Velocity ⁰ /Sec	i	2	4	8	12	16 .	20	
Volt Mean		•		1:333	1.106	.833	.532	
Volt S.D.	Sees to	Гор		.0435	.0704 ⁻	.0331	.0839	
Degree Mean				16.46	13.65	10.28	6.57	
Degree S.D.				.537	.869	.409	1.036	
				90th Me	ridian			
Volt Mean	1.201	1.206	1.204	.998	.849	.680	. 503	
Volt S.D.	.0097	.0263	.0340	.0484	.0390	.0564	.0274	
Degree Mean	14.83	14.89	14.86	12.32	10.48	8.40	6.21	
Degree S.D.	.120	.325	.420	.598	.481	. 696	.338	
				0 Meric	ian			
Volt Mean	1.806	1.752	1.654	1.306	.588	. 452	.316	
Volt S.D.	.0865	.0835	.0564	. 1524	.0268	.0650	.0754	
Degree Mean	30.10	29.20	27.57	21.77	9.80	7.53	5.27	
Reaction Correction Facto	. 25	.50	1.00	2.01	3.01	4.02	5.02	
Corrected Degree Mean	30.36	29.70	28.57	23.78	12.81	11.55	10.29	
Degree S.D.	1.442	1.392	.940 ·	2.540	.447	1.083	1.257	
				180th M	feridian			
Volt Mean	1.868	2.006	1.742	1.344	.534	.416	. 238	
Volt S.D.	.1587	.0602	.0726	.1431	.0182	.0336	.0259	
Degree Mean	31.13	33.43	29.03	22.40	8.90	6.93	3.97	
Reaction Correction Factor		.50	1.00	2.01	3.01	4.02	5.02	
Corrected Degree Mean	31.38	33.93	30.03	24.41	11.91	10.95	8.99	
Degree S.D.	2.645	1.003	1.210	2.385 .	.303	. 560	. 432	
					,			

Subject # 2 B.M. Procedure #1 Contrast 54%

(Vertical) $1^0 = .081 \text{ Volts}$ (Horizontal) $1^0 = .060 \text{ Volts}$ Reaction Time= .251 Sec

				270th A	Meridian			
Velocity ⁰ /Sec	1	2	4	8	12	16	20	
Volt Mean				1:113	.935	.765	.351	
Volt S.D.				.0301	.0490	.1224	.0302	
Degree Mean	Sees to	Гор		13.74	11.54	9.44	4.33	
Degree S.D.				.383	.605	1.511	.373	
				90th M	eridian			
Volt Mean	1.092	1.076	. 985	.783	.601	. 522	. 345	
Volt S.D.	.0589	.0254	.0478	.0252	.0358	.0318	.0416	
Degree Mean	13.48	13.28	12.16	9.67	7.42	6.44	4.26	
Degree S.D.	.727	.314	.590	.311	.442	.393	.514	
				0 Meri	dian		•	
Volt Meán	1.268	1.180	1.060	.652	.470	.298	. 178	
Volt S.D.	.0993	.0806	.1125	.0192	.0604	.1085	.0760	
Degree Mean	21.13	19.67	17.67	10.87	7.83	4.97	2.97	
Reaction Correction Facto	. 25	.50	1.00	2.01	3.01	4.02	5.02	
Corrected Degree Mean	21.38	20.17	18.67	12.88	10.84	8.99	7.99	
Degree S.D.	1.655	1.343	1.875	.320	1.007	1.808	1.267	
				180th A	Meridian			
Volt Vean	1.340	1.294	. 966	.568	. 434	. 296	.102	
Volt S.D.	.0566	.1064	.1309	.0390	.0456	.0639	.0773	
Degree Mean	22.33	21.57	16.10	9.47	7.23	4.93	1.70	
Reaction Correction Factor	. 25	.50	1.00	2.01	3.01	4.02	5.02	T
Corrected Degree Mean	22.58	22.07	17.10	11.48	10.24	8.95	6.72	
Degree S.D.	. 943	1.773	2.182	.650	.760	1.065	1.288	

Subject # 2 B.M. Procedure #1 Contrast 43% (Vertical) 1°= .081 Volts (Horizontal) 1°= .060 Volts Reaction Time= .251 Sec

				270th M	eridian				
Velocity ⁰ /Sec	1	2	4	8	12	16	20		
Volt Mean	1.191	1.131	1.024	.879	.645	.395	. 248		
Volt S.D.	.0153	.0173	.0365	.0246	.0505	.0880	.0282		
Degree Mean	14.70	13.96	12.64	10.85	7.96	4.88	3.06		
Degree S.D.	. 189	.214	. 451	.304	.623	1.086	.348		
				90th Me	ridian				
Volt Mean	1.013	. 992	.871	.648	.431	.332	.274		
Volt 5 D	.0732	.0491	.0185	.0465	.0308	.0224	. 0355		
Degree Mean	12.51	12.25	10.75	8.00	5.32	4.10	3.38		
Degree S.D.	.904	.606	.228	.574	.380	.277	. 438		
				0 Meric	lan				
Volt Mean	. 952	.868	.768	.612	.370	122	+.086		
Volt S.D.	.0383	.0773	.0630	.0502	.1277	.0676	.0744		
Degree Mean	15.87	14.47	12.80	10.20	6.17	-2.03	+1.43		
Reaction Correction Factor	. 25	.50	1.00	2.01	3.01	4.02	5.02		
Corrected Degree Mean	16.12	14.97	13.80	12.21	9.18	6.05	3.59		
Degree S.D.	. 550	1.288	1.050	.837	2.128	1.127	1.240		
				180th M	eridian				
Volt Mean	.974	.834	. 654	. 478	.328	+.162	024		
Volt S.D.	.1609	.1528	.0546	.0517	.0487	. 0295	.0963		
Degree Mean	16.23	13.90	10.90	7.97	5.47	+2.70	40		
Reaction Correction Facto	. 25	.50	1.00	2.01	3.01	4.02	5.02		
Corrected Degree Mean	16.48	14.40	11.90	9.98	8.48	6.72	4.62	3	
Degree S.D.	2.817	2.547	.910	.862	.812	.492	1.605		

Subject # 2 B.M. Procedure #1 Contrast 34%

(Vertical) $1^0 = .081$ Volts (Horizontal) $1^0 = .060$ Volts Reaction Time= .251 Sec

				270th M	eridian			
Velocity 0/Sec	1	2	4	8	12	16	20	
Volt Mean	.969	.972	.792	.533	.370	.157	.095	
Volt 5.D.	.0474	.0248	.0257	.0393	.0359	.0361	. 0373	
Degree Mean	11.96	12.00	9.78	6.58	4.57	1.94	1.17	
Degree S.D.	. 585	.306	.317	.485	. 443	. 446	.460	
				90th Me	ridian			
Volt	.839	.807	.661	.511	.312	.196	. 180	
Volt S.D	. 0388	.0148	.0530	.0334	.0252	.0187	. 0289	
Degree Mean	10.36	9.96	8.16	6.31	3.85	2.42	2.22	
Degree S.D.	. 479	.183	.654	.412	.311	.231	.357	
				0 Meric	ian			
Volt Viean	.830	.814	.640	.452	.126	039	+.234	
Volt S.D.	.0418	.0786	.0612	.0926	.0666	.0883	.0555	
Degree Mean	13.83	13.57	10.67	7.53	2.10	65	+3.90	
Reaction Correction Factor	. 25	.50	1.00	2.01	3.01	4.02	5.02	
Corrected Degree Mean	14.08	14.07	11.67	9.54	5.11	4.67	1.12	
Degree S.D.	.697	1.310	1.020	1.543	1.110	1.472	. 925	
				180th N	(eridian			
Volt Vesa	.712	.676	.568	.382	+.140	038	248	
Volt S.D.	. 0259	.0856	.0593	.0164	.0534	.1274	.0497	
Degree Mean	11.87	11.27	9.47	6.37	+2.33	63	-4.13	
Reaction Correction Facto	25	.50	1.00	2.01	3.01	4.02	5.02	
Corrected Degree Mean	12.12	11.77	10.47	8.38	5.34	3.39	.89	
Degree S.D.	. 432	1.427	.988	.273	.890	2123	.828	

Subject # 2 B.M. Procedure #1 Contrast 27%

(Vertical) 1°= .081 Volts (Horizontal) 1°= .060 Volts Reaction Time=.251 Sec

				270th M	eridian			
Velocity ⁰ /Sec	1	2 .	4	8	12	16	20	
Volt Mean	.846	.773	.610	.292	.148	.119	.046	
Volt S.D.	.0502	.0392	.0379	.0319	.0217	.0270	.0306	
Degree Mean	10.44	9.54	7.53	3.60	1.83	1.47	. 57	
Degree S.D.	.620	. 484	. 468	.394	.268	.333	.378	
				90th Me	ridian			
Volt Mean	.631	.636	.512	.267	.176	.117	.060	
Volt S.D.	. 0206	.0362	.0560	.0340	.0175	.0270	.0141	
Degree Mean	7.79	7.85	6.32	3.30	2.17	1.44	.74	
Degree S.D.	. 254	.447	.691	.420	.216	.333	. 174	
				0 Merio	ilan			
Volt ·	.734	.606	.504	162	004	+.138	+.334	
Volt S.D.	.0279	.0439	.0537	.0531	.0207	.0444	. 0829	
Degree Mezn	-12.23	10.10	8.40	-2.70	07	+2.30	+5.57	
Reaction Correction Factor		.50	1.00	2.01	3.01	4.02	5.02	
Corrected Degree Mean	12.48	10.60	9.40	4.71	3.08	1.72	55	
Degree S.D.	. 465	.732	.895	.885	.345	.740	1.382	
				180th	Meridian			
Volt Vean	. 634	. 542	.402	.174	+.032	182	312	
Volt S.D.	. 0358	.0634	.1003	.0847	.0614	.0409	.0466	
Degree Mean	10.57	9.03	6.70	2.90	+.53	-3.03	-5.20	
Reaction Correction Factor	25	.50	1.00	2.01	3.01	4.02	5.02	
Corrected Degree Mean	10.82	9.53	7.70	4.91	3.54	.99	18	<u> </u>
Degree S.D.	.597	1.057	1.672	1.412	1.023	.682	.777 .	

Subject # 2 B.M. Procedure # 2 Contrast 68%

(Vertical) 1^0 = .075 Volts (Horizontal) 1^0 = .060 Volts Reaction Time= .251 Sec

				270th M	eridian				· .
Velocity ⁰ /Sec	1	2	4	8	12	16	20		
Volt Mean					1.153	1.005	.705		
Volt S.D.	Sees at	op			.0356	.0705	.0530	·	
Degree Mean					15.37	13.40	9.40		
Degree S.D.					. 475	.940	.707		
				90th Me	ridian				
Volt Mean	1.077	1.113	1.045	.899	.777	.667	.519		
Volt S.D.	.0685	.0239	.0566	.0371	.0431	.0679	.0406		
Degree Mean	14.36	14.84	13.93	11.99	10.36	8.89	6.92		
Degree S.D.	. 913	.319	.755	.495	.575	.905	.541		
				0 Merio	lan				
Volt Mean	1.63	1.69	1.52	.77	. 57	.33	.11		
Volt S.D.	.0555	.0767	.1564	.1065	.0527	.0335	.0421		
Degree Mean	27.17	28.17	25.33	12.83	9.50	5.50	1.83		
Reaction Correction Factor	. 25	.50	1.00	2.01	3.01	4.02	5.02		·
Corrected Degree Mean	27.42	28.67	26.33	14.84	12.51	9.52	6.85		
Degree S.D.	. 925	1.278	2.607	1.775	.878	. 558	. 702		
				180th N	Meridian				
Volt Mean	1.881	1.864	1.712	1.298	. 654	.416	. 284		
Volt S.D.	.0658	.1372	. 1228	. 2549	.1798	.0577	.0994		
Degree Mean	31.35	31.07	28.53	21.63	10.90	6.93	4.73		
Reaction Correction Factor	.25	.50	1.00	2.01	3.01	4.02	5.02		
Corrected	31.60	31.57	29.53	23.64	13.91	10.95	9.75		
Degree Mean						.762	1.657		

Subject # 2 B.M. Procedure # 2 Contrast 54%

(Vertical) 1° = .075 Volts (Horizontal) 1° = .060 Volts Reaction Time= .251 Sec

				270th M	eridian			
Velocity ⁰ /Sec	1	2	4	8	12	16	20	
Volt Mean				r.012	.852	.682	.384	
Volt S.D.				0.400	.0296	.0909	.0679	
Degree Mean				13.49	11.36	9.09	5.12	
Degree S.D.				.533	.395	1.212	. 905	
				90th Me	ridian			·
Volt Mean	. 978	.968	.901	.774	.577	.484	.320	
Volt S.D	. 0307	.0177	.0484	.0300	.0251	.0312	.0335	
Degree Mean	13.04	.12.91	12.01	10.32	7.69	6.45	4.27	
Degree S.D.	4.09	.236	. 645	.400	.335	.416	.447	
				0 Merid	an			
Volt Mean	1.19	1.40	.76	.60	. 34	+.16	04	
Volt S.D.	. 2794	.1747	. 0536	.0370	.0518	.0952	.0971	
Degree Mean	19.83	23.33	12.67	10.00	5.67	+2.67	67	
Reaction Correction Facto	. 25	.50	1.00	2.01 - •	3.01	4.02	5.02	
Corrected Degree Mean	20.08	23.83	13.67	12.01	8.68	6.67	4.35	
Degree S.D.	4.657	2.912	.893	.617	.863	1.587	1.618	
				180th M	eridian			
Volt Mean	1.636	1.646	1.510	.688	. 426	324	130	
Volt S.D.	. 1659	.0321	.1198	.0687	.0385	.0493	. 0949	
Degree Mean	27.27	27.43	25.17	11.47	7.10 .	-5.40	-2.17	
Reaction Correction Factor	. 25	.50	1.00	2.01	3.01	4.02	5.02	
Corrected Degree Mean	27.52	27.93	26.17	13.48	10.11	9.42	7.19	
	2.765	1.535	1.997	1.145	.642	.822	1.582	

Subject # 2 B.M. Procedure #1 Contrast 43%

(Vertical) 1"= .075 Volts (Horizontal) 1°= .060 Volts Reaction Time= .251 Sec

				270th M	eridian				
Velocity ⁰ /Sec	1	2	4	8	12	16	20		
Volt Mean	1.044	1.036	.973	.819	.514	.366	.246		
Volt S.D.	.0395	.0343	.6199	.0664	.0720	.0306	.0603		
Degree Mean	13.92	13.81	12.97	10.92	6.85	4.88	3.28		
Degree S.D.	.527	. 457	.265	.885	.960	.408	.804		
				90th Me	ridian				
Volt Mean	.806	.836	.801	.527	. 450	.249	.209		
Volt S.D.	. 0254	.0537	.0322	.0067	.0467	. 0358	.0275		
Dogree Mean	10.75	11.15	10.68	7.03	6.00	3.32	2.79		
Degree S.D.	. 339	.716	429	.089	. 623	. 477	.367		
				0 Merid	an				
Volt Mean	.74	.75	.62	.30	+.25	01	18		1.
Volt S.D.	. 0394	.0396	.0776	.0638	.0279	.0723	.0288		
Degree Mean	12.33	12.50	10.33	5.00	+4.17	17	-3.00		
Reaction Correction Factor	. 25	.50	1.00	2.01	3.01	4.02	5.02		
Corrected Degree Mean	12.58	13.00	11.33	7.01	7.18	3.85	2.02		
Degree S.D.	.657	.660	1.293	1.063	. 465	1.205	. 480		
				180th M	eridian				
Volt Mean	.892	.772	.910	.546	. 284	148	+.026		
Volt S.D.	. 0526	.0466	.1646	.1569	.0699	. 0259	.1178		
Degree Mean	14.87	12.87	15.17	9.10	4.73	-2.47	+.43		
Reaction Correction Factor	. 25	.50	1.00	2.01	3.01	4.02	5.02	·	
Corrected Degree Mean	15.12	13.37	16.17	11.11	7.74	6.49	4.59		
Degree S.D.	.877	.777	2.743	2.615	1.165	. 432	1.963		

Subject # 2 B.M. Procedure # 2 Contrast 34%

(Vertical) 10=.075 Volts (Horizontal) 10=.060 Volts Reaction Time=.251 Sec

		1							
		-		270th	Meridian	·			
Velocity %/Sec	1	2	4	8	12	16	20		
Volt Mean	.873	.862	.845	.642	. 425	.157	.117		
Volt S.D.	.0242	.0461	.0284	.0556	.0504	.0230	.0506		
Degree Mean	11.64	11.49	11.27	8.56	5.67	2.09	1.56		
Degree S.D.	.323	.615	.379	.741	.672	.307	.675	1	
				90th M	eridian			†	-
Volt Mean	.680	.656	.566	.409	. 249	.201	.144		
Volt S.D.	.0338	.0324	.0496	.0633	.0282	.0590	.0200	 	
Degree Mean	9.07	8.75	7.55	5.45	3.32	2.68	1.92		
Degree S.D.	.451	. 453	.661	.844	.376	.787	. 267		
•				0 Merio	ilan		 	 	
Volt Mean	.74	.70	.59	.24	+.13	04	25	-	-
Voit S.D.	.0167	.0230	.0559	.0728	.0832	.0862	.0467		
Degree Mean	12.33	11.67	9.83	4.00	+2.17	67	-4.17		
Reaction Correction Facto	. 25	.50	1.00	2.01	3.01	4.02	5.02		-
Corrected Degree Mean	12.58	12.17	10.83	6.01	5.18	3.35	.85		+
Degree S.D.	. 278	.383	.932	1.213	1.387	1.437	.778		
				180th M	eridian	<u> </u>			
Volt Mean	. 734	. 708	. 588	.376	162	+.015	+.256		
Volt S.D.	. 0055	.0402	. 0356	.0876	.1154	.0507	.0740	<u> </u>	
Degree Mean	12.23	11.80	9.80	6.27	-2.70	+.25	+4.27		+
Reaction Correction Factor	. 25	. 50	1.00		3.01	4.02	5.02		
Corrected Degree Mean	12.48	12.30	10.80	8.28	5.71	3.77	. 75		
Degree S.D.	. 092	.670	. 593	1.460	1.923	.845	1.233		1

Subject # 2B.M. Procedure # 2 Contrast 27%

(Vertical) 1°=.075 Volts (Horizontal) 1°=.060 Volts Reaction Time=.251 Sec

			270th M	eridian				
1	2	4	8	12	16	20		
.671	. 682	.597	.256	. 150	.106	.037		
.0188	.0250	.0500	.0370	.0562 ·	.0297	.0272		
8.75	9.09	7.96	3.41	2.00	1.41	.49		
.251	.333	.667	.493	. 749	.396	.363		
			90th Me	ridian				
. 575	.538	.488	.256	.148	.103	. 058		
.0260	.0286	.0385	.0453	. 0388	.0167	.0261		
7.67	7.17	6.51	3.41	1.97	1.37	.77		
. 347	.381	.513	.604	.517	.223	.348		
		·	0 Merid	an				
. 62	.55	. 44	+.30	03	22	42		
.0415	.0394	.0654	.0913	.0409	.0778	.0422	-	
10.33	9.17	7.33	+5.00	50	-3.67	-7.00		
. 25	.50	1.00	2.01	3.01	4.02	5.02		
10.58	9.67	8.33	7.01	2.51	.35	-2.02		
. 692	.657	1.090	1.522	.682	1.297	.703		
			180th M	eridian				
. 620	.615	. 464	.192	080	+.218	+.438		
.0600	.0327	.0532	.0876	.1160	.0522	.0581		
10.33	10.25	7.73	3.20	-1.33	+3.63	7.30		
. 25	.50	1.00	2.01	3.01	4.02	5.02		1
10.58	10.75	8.73	5.21	4.34	.39	-2.28		
•		.887	+	1.933	.870-	.968	+	-
	.671 .0188 8.75 .251 .575 .0260 7.67 .347 .62 .0415 10.33 .25 10.58 .692 .620 .0600 10.333 .25 10.58	.671 .682 .0188 .0250 8.35 9.09 .251 .333 .575 .538 .0260 .0286 7.67 7.17 .347 .381 .62 .55 .0415 .0394 10.33 9.17 .25 .50 10.58 9.67 .692 .657 .692 .657 .620 .615 .0600 .0327 10.33 10.25 .25 .50 10.58 10.75	.671 .682 .597 .0188 .0250 .0500 8.35 9.09 7.96 .251 .333 .667 .575 .538 .488 .0260 .0286 .0385 7.67 7.17 6.51 .347 .381 .513 .62 .55 .44 .0415 .0394 .0654 10.33 9.17 7.33 .25 .50 1.00 10.58 9.67 8.33 .692 .657 1.090 .620 .615 .464 .0600 .0327 .0532 10.33 10.25 7.73 .25 .50 1.00 10.58 10.75 8.73	1 2 4 8 .671 .682 .597 .256 .0188 .0250 .0500 .0370 8.35 9.09 7.96 3.41 .251 .333 .667 .493 90th Me .575 .538 .488 .256 .0260 .0286 .0385 .0453 7.67 7.17 6.51 3.41 .347 .381 .513 .604 0 Merid .62 .55 .44 +.30 .0415 .0394 .0654 .0913 10.33 9.17 7.33 +5.00 .25 .50 1.00 2.01 10.58 9.67 8.33 7.01 .692 .657 1.090 1.522 10.692 .657 1.090 1.522 10.33 10.25 7.73 3.20 .25 .50 1.00 2.01 10.58 10.75 8.73 5.21	.671 .682 .597 .256 .150 .0188 .0250 .0500 .0370 .0562 8.35 9.09 7.96 3.41 2.00 .251 .333 .667 .493 .749 90th Meridian .575 .538 .488 .256 .148 .0260 .0286 .0385 .0453 .0388 7.67 7.17 6.51 3.41 1.97 .347 .381 .513 .604 .517 0 Meridian .62 .55 .44 +.30 03 .0415 .0394 .0654 .0913 .0409 10.33 9.17 7.33 +5.00 50 .25 .50 1.00 2.01 3.01 10.58 9.67 8.33 7.01 2.51 .692 .657 1.090 1.522 .682 180th Meridian .620 .615 .464 .192 080 .0600 .0327 .0532 .0876 <td>1 2 4 8 12 16 .671 .682 .597 .256 .150 .106 .0188 .0250 .0500 .0370 .0562 .0297 8.35 9.09 7.96 3.41 2.00 1.41 .251 .333 .667 .493 .749 .396 90th Meridian .575 .538 .488 .256 .148 .103 .0260 .0286 .0385 .0453 .0388 .0167 7.67 7.17 6.51 3.41 1.97 1.37 .347 .381 .513 .604 .517 .223 .0415 .0394 .0654 .0913 .0409 .0778 10.33 9.17 7.33 +5.00 -50 -3.67 .25 .50 1.00 2.01 3.01 4.02 10.58 9.67 8.33 7.01 2.51 .35 .692 .657 1.090 1.522 .682 1.297 180th Meridian .620<</td> <td>1 2 4 8 12 16 20 .671 .682 .597 .256 .150 .106 .037 .0188 .0250 .0500 .0370 .0562 .0297 .0272 8.75 9.09 7.96 3.41 2.00 1.41 .49 .251 .333 .667 .493 .749 .396 .363 .0250 .0286 .0493 .749 .396 .363 .0260 .0286 .0385 .0453 .0388 .0167 .0261 7.67 7.17 6.51 3.41 1.97 1.37 .77 .347 .381 .513 .604 .517 .223 .348 .62 .55 .44 +.30 03 22 42 .0415 .0394 .0654 .0913 .0409 .0778 .0422 10.33 9.17 7.33 +5.00 -50 -3.67 -7.00 .25 .50 1.00 2.01 3.01 4.02 5.02<</td> <td>1 2 4 8 12 16 20 .671 .682 .597 .256 .150 .106 .037 .0188 .0250 .0500 .0370 .0562 .0297 .0272 8.95 9.09 7.96 3.41 2.00 1.41 .49 .251 .333 .667 .493 .749 .396 .363 .0260 .0286 .0385 .0453 .0388 .0167 .0261 7.67 7.17 6.51 3.41 1.97 1.37 .77 .347 .381 .513 .604 .517 .223 .348 .62 .55 .44 +.30 03 22 42 .0415 .0394 .0654 .0913 .0409 .0778 .0422 10.33 9.17 7.33 +5.00 50 -3.67 -7.00 .25 .50 1.00 2.01 3.01 4.02 5.02 10.58 9.67 8.33 7.01 2.51 .35</td>	1 2 4 8 12 16 .671 .682 .597 .256 .150 .106 .0188 .0250 .0500 .0370 .0562 .0297 8.35 9.09 7.96 3.41 2.00 1.41 .251 .333 .667 .493 .749 .396 90th Meridian .575 .538 .488 .256 .148 .103 .0260 .0286 .0385 .0453 .0388 .0167 7.67 7.17 6.51 3.41 1.97 1.37 .347 .381 .513 .604 .517 .223 .0415 .0394 .0654 .0913 .0409 .0778 10.33 9.17 7.33 +5.00 -50 -3.67 .25 .50 1.00 2.01 3.01 4.02 10.58 9.67 8.33 7.01 2.51 .35 .692 .657 1.090 1.522 .682 1.297 180th Meridian .620<	1 2 4 8 12 16 20 .671 .682 .597 .256 .150 .106 .037 .0188 .0250 .0500 .0370 .0562 .0297 .0272 8.75 9.09 7.96 3.41 2.00 1.41 .49 .251 .333 .667 .493 .749 .396 .363 .0250 .0286 .0493 .749 .396 .363 .0260 .0286 .0385 .0453 .0388 .0167 .0261 7.67 7.17 6.51 3.41 1.97 1.37 .77 .347 .381 .513 .604 .517 .223 .348 .62 .55 .44 +.30 03 22 42 .0415 .0394 .0654 .0913 .0409 .0778 .0422 10.33 9.17 7.33 +5.00 -50 -3.67 -7.00 .25 .50 1.00 2.01 3.01 4.02 5.02<	1 2 4 8 12 16 20 .671 .682 .597 .256 .150 .106 .037 .0188 .0250 .0500 .0370 .0562 .0297 .0272 8.95 9.09 7.96 3.41 2.00 1.41 .49 .251 .333 .667 .493 .749 .396 .363 .0260 .0286 .0385 .0453 .0388 .0167 .0261 7.67 7.17 6.51 3.41 1.97 1.37 .77 .347 .381 .513 .604 .517 .223 .348 .62 .55 .44 +.30 03 22 42 .0415 .0394 .0654 .0913 .0409 .0778 .0422 10.33 9.17 7.33 +5.00 50 -3.67 -7.00 .25 .50 1.00 2.01 3.01 4.02 5.02 10.58 9.67 8.33 7.01 2.51 .35

Subject #2 B.M. Procedure #3

68%	54%	43%	34%	27%				
		270th Me	idian					
1.014	.912	.707	.641	.395				
.0066	.0734	.0733	. 0399	.0106				
14.49	13.03	10.10	9.16	5.64				
.094	1.049	1.047	.570	. 151				
		90th Mer	dian					
.719	.622	.603	.484	.335				
.0159	£260	.0148	.0397	.0289				
10.27	8.89	8.61	6.91	4.79				
. 227	.371	.211	.567	.413				
		0 Meridi	n					
1.340	1.038	.830	.701	.609				
.0205	.1042	.0436	.0489	.0352				
22.33	17.30	13.83	11.68	10.15				
.342	1.737	.727	.815	.587				
		180th Me	ridian					
1.708	1.359	. 848	.640	. 565				
.1017	.0590	.1061	.0747	.0350				
28.47	22.65	14.13	10.67	9.42				
1.695	. 983	1.768	1.245	.583				
	1.014 .0066 .14.49 .094 .719 .0159 10.27 .227 .227 .227 .340 .0205 .22.33 .342 .1.708 .1017 .28.47	1.014 .912 .0066 .0734 14.49 13.03 .094 1.049 .719 .622 .0159	270th Men 1.014	270th Meridian 1.014	270th Meridian 1.014	270th Meridian 1.014 .912 .707 .641 .395 .0066 .0734 .0733 .0399 .0106 .094 1.049 1.047 .570 .151 .719 .622 .603 .484 .335 .0159 .0260 .0148 .0397 .0289 .027 8.89 8.61 6.91 4.79 .227 .371 .211 .567 .413 .413 .414 .415	270th Meridian	270th Meridian 1.014 .912 .707 .641 .395 .0066 .0734 .0733 .0399 .0106 .094 1.049 1.047 .570 .151 .0159 .0260 .0148 .0397 .0289 .0159 .0260 .0148 .0397 .0289 .0277 .371 .211 .567 .413 .227 .371 .211 .567 .413 .009 .0205 .1042 .0436 .0489 .0352 .0253 .1042 .0436 .0489 .0352 .0342 1.737 .727 .815 .587 .342 1.737 .727 .815 .587 .388 .3888 .640 .565 .1017 .0590 .1061 .0747 .0350 .28.47 .22.65 14.13 10.67 9.42

Subject #2 B.M. Procedure #4

Contrast	68%	54%	43%	34%	27%			
			270th Me	ridian				
Volt Mean	1.110	.790	.672	.656	. 438			
Volt S.D.	.0500	.0996	.0404	.0236	.0324			
Degree Mean	14.80	10.53	8.96	8.75	5.84			
Degree S.D.	.667	1.328	.539	.315	. 432			
			90th Mer	dian				
Volt Mean	. 920	.713	.540	. 48 9	.292			
Volt S.D.	.0030	.0594	.0438	.0088	.0462			
Degree Mean	12.27	9.51	7.20	6.52	3.89			
Degree S.D.	.040	.792	.584	.117	.616			
			0 Meridi	an				
Volt Mean	1.574	1.284	.863	.683	.623			
Volt S.D.	.1561	.2418	.0129	.0358	.0700			
Degree Mean	26.23	21.40	14.38	11.38	10.38			
Degree S.D.	2.602	4.030	.215	. 597	1.167			
			180th Me	ridian				
Volt Mean	1.822	1.168	.731	.703	. 625			
Volt S.D.	.1184	. 2668	.0263	.0283	.0646			
Degree Mean	30.37	19.47	12.18	11.72	10.42		 	
Degree S.D.	1.973	4.447	. 438	.472	1.077			
	·							

Subject # 1 D.F. Procedure #1 Contrast 68% (Vertical) 1°= .081 Volts (Horizontal) 1°= .060 Volts Reaction Time= .235 sec

			270th M	ridian			
1	2	4	8	12	. 16	20	
			:999	.818	. 475	.296	
Sees to	Тор		.0630	.0684	.0367	.0477	·
			12.33	10.10	5.86	3.65	
			.778	.844	. 453	.589	·
			90th Me	ridian			
	1.193	1.022	.712	.630	.372	.239	
Sees	.0322	.0148	.0549	.0253	.0237	.0135	
bottom	14.73		8.79	7.78	4.59	2.95	
	. 398	. 183	.678	.312	. 293	.167	·
			0 Merid	an	·		
.973	. 778	.782	.622	376	224	- 004	
. 0556	.0653	.0530	.0462	. 1077	.1161	.0265	
16.21	12.97	13.03	10.37	6.27	3.73	.07	
Ż4	. 47	. 94	1.88	2.82	3.76	4.70	
16.45	13.44	13.97	12.25	9.09	7.49	4.77	
. 927	1.088	.883	.770	1.795	1.935	.442	
			180th M	eridian			
1.095	.842	.710	. 526	+.324	+.040	010	
.1720	.0949	.0340	.1087	. 0954	.0849	.0502	
18.25	14.03	11.83	8.77	+5.40	+.67	17	
24	.47	.94	1.88	2.82	3.76	4.70	
18.49	14.50	12.77	10.65	8.22	4.43	4.53	
2.867	1.582	.567	1.812	1.590	1.415	.837	
	Sees to Sees at	Sees to Top 1.193 Sees at .0322 bottom 14.73 .398 .973 .778 .0556 .0653 16.21 12.9724 .47 16.45 13.44927 1.088 1.095 .8421720 .0949 18.25 14.0324 .47 18.49 14.50	Sees to Top 1.193	1 2 4 8 Sees to Top .0630 Sees to Top .0630 12.33 .778 90th Me 1.193 1.022 .712 Sees at .0322 .0148 .0549 bottom 14.73 12.62 8.79 .398 .183 .678 0 Merid .973 .778 .782 .622 .0556 .0653 .0530 .0462 16.21 12.97 13.03 10.37 .24 .47 .94 1.88 16.45 13.44 13.97 12.25 .927 1.088 .883 .770 180th M 1.095 .842 .710 .526 .1720 .0949 .0340 .1087 18.25 14.03 11.83 8.77 .24 .47 .94 1.88 18.49 14.50 12.77 10.65	Sees to Top	1 2 4 8 12 16 Sees to Top .0630 .0684 .0367 Image: Control of the problem of the proble	1 2 4 8 12 16 20 Sees to Top .0630 .0684 .0367 .0477 12.33 10.10 5.86 3.65 12.33 10.10 5.86 3.65 90th Meridian 1.193 1.022 .712 .630 .372 .239 Sees at .0322 .0148 .0549 .0253 .0237 .0135 bottom 14.73 12.62 8.79 7.78 4.59 2.95 .398 .183 .678 .312 .293 .167 .973 .778 .782 .622 .376224004 .0556 .0653 .0530 .0462 .1077 .1161 .0265 16.21 12.97 13.03 10.37 6.27 3.73 .07 .24 .47 .94 1.88 2.82 3.76 4.70 .1095 .842 .710 .526 +.324 +.040010 .1720 .0949 .0340 .1087 .0954 .0849 .0502 18.25 14.03 11.83 8.77 +5.40 +.6717 .24 .47 .94 1.88 2.82 3.76 4.70 .18.49 14.50 12.77 10.65 8.22 4.43 4.53

Subject # 1 D.P. Procedure #1 Contrast 43%

(Vertical) $1^0 = .081$ Volts (Horizontal) $1^0 = .060$ Volts Reaction Time= .235 sec

				270th M	eridian				
Velocity ⁰ /Sec	1	2	4	8	12	16	20 -		
Volt Mean	1.076	1.071	.888	.474	.185	.095	.066		
Volt S.D.	.0211	.0334	.0344	.0184	.0299	.0163	.0366		·
Degree Mean	13.28	13.22	10.96	5.85	2.28	1.17	.81		
Degree S.D.	.260	.412	. 425	.227	.369	.201	. 452		·
				90th Me	ridian				
Volt Mean	.991	. 956	.855	.401	.242	.108	.081		
Volt 5.D	.0360	.0360	.0221	.0182	.0248	.0168	.0367		
Degree Mean	12.23	11.80	10.56	4.95	2.99	1.33	1.00		
Degree S.D.	. 444	.444	.273	.225	.306	.207	. 453		
				0 Merid	an				
Volt Mean	.756	.639	.591	.307	-143	+.082	+.162		
Vel: S.D.	.0620	.0976	.0258	.0307	.0510	.0690	.0774		
Degree Mean	12.60	10.65	9.85	5.12	-2.38	+1.37	+2.70		
Reaction Correction Facto	.24	.47	.94	1.88	2.82	3.76	4.70	<u> </u>	
Corrected Degree Mean	12.84	11.12	10.79	7.00	5.20	2.39	2.00		
Degree S.D.	1.033	1.627	.430	.512	.850	1.150	1.290		
				180th M	eridian				
Volt Mean	.674	.668	.531	. 254	+.047	062	158		
Volt S.D.	.0579	.0244	.0795	.0623	.0619	.0345	.1103		
Degree Mean	11.23	11.13	8.85	4.23	+.78	-1.03.	-2.63		
Reaction Correction Facto	24	.47	.94	1.88	2.82	3.76	4.70		
Corrected Degree Mean	11.47	11.60	9.79	6.11	3.60	2.73	2.07		
Degree S.D.	.965	.407	1.33	1.04 •	1.03	.575	1.838		
			1						

Subjec Procedure #1 Contrast 27% 1 D.P.

(Vertical) 1°= .081 Volts (Horizontal) 1°=.060 Volts Reaction Time= .235 Sec

				270th M	eridian				
Velocity ^a /Sec	1	2	4	8	12	16	20		
Volt Mean	. 656	.561	196	108	0202	Can't S	ee		
Volt S.D.	. 0326	.0326	.0279	.0175	.0186	11			
Degree Mean	8.10	6.93	2.42	1.33	. 25				
Degree S.D.	.402 `	.402	. 344	.216	. 230				
				90th Me	ridian				
Volt Mean	. 585	.504	+.269	+.094	+.040	Can't S	ee		
Volt S.D.	.0251	.0541	.0198	.0180	.0221				
Degree Mean	7.22	6.22	3.32	1.16	.49				
Degree S.D.	.310	.668	.244	.222	.273				
				0 Merid	an				
Volt Mean	. 529	.507	. 325	120	+.125	Can't S	ee		
Volt S.D.	. 0.527	.0638	.0502	.0735	.0339	Can't S	ee		
Degree Mean	8.82	8.45	5.42	-2.00	+2.08				
Reaction Correction Factor	. 24	.47	. 94	1.88	2.82		•		
Corrected Degree Mean	9.06	8.92	6.36	3.88	0.74				
Degree S.D.	.878	1.063	837	1.225	.565				
				180th M	eridian				
Volt Mean	181	394	. 188	+.048	120	Can't S	ee		
Volt S.D.	.0581	.0714	.0360	.0526	. 1089				
Degree Mean	8.02	6.57	3.13	+.80	-2.00				
Reaction Correction Facto	.24	.47	. 94	1.88	2.82				
Corrected Degree Mean	8.26	7.04	4.07	2.68	.82				
	.968	1.190	.600	.877	1.815		1	1	

Subject # 1 D.P. Procedure # 2 Contrast 68%*

(Vertical) 1⁰ = .075 Volts (Horizontal) 1⁰ = .060 Volts Reaction Time= .235 Sec

				270th M	eridian				1
Velocity ⁰ /Sec	1	.2	4	8	12	16	20	·	
Volt . Mean					+1.171	.961	.807		
Volt S.D.	Sees at	Тор			.0157	.0202	.0253		
Degree Mean					15.61	12.81	10.76		
Degree S.D.					.209	.267	.337		
				90th Me	idian	*(Actua	1 83% Con	rast)	
Volt Mean			1.258	1.008	.864	.772	.464		
Volt S.D.	Sees at	Bottom	.0185	.0443	.0707	.0361	.0389		
Degree Mean			16.77	13.44	11.52	10.29	6.19		
Degree S.D.			. 247	.591	.943	.481	.519		
				0 Merio	ian				
. ^V olt Mean	1.073	1.043	.897	.628	. 554	.178	.023		
Volt S.D.	.0482	.0779	.0274	.0308	.0954	.0252	.0823		
Degree Mean	17.88	17.38	14.95	10.47	9.23	2.97	. 38		
Reaction Correction Fact	. 24	.47	.94	1.88	2.82	3.76	4.70		
Corrected Degree Mean	18.12	17.85	15.89	12.35	12.05	6.73	5.08		
Degree S.D.	.8033	1.298	.457	.513	1.590	. 420	1.372		
				180th	Meridian				
Volt Mean	1.046	.900	.851	699	403	161	±.091		
Volt S.D.	.0303	.0280	.0463	.0432	.1219	.0643	.0826		
Degree Mean	17.43	15.00	14.18	11.65	6.72	-2.68	+1.52		
Reaction Correction Fac		.47	.94	1.88	2.82	3.76	4.70		
Corrected Degree Mean	17.67	15.47	15.12	13.53	9.54.	6.44	3.18		Ċ
Degree S.D.	.505	. 467	.772	.720	2.032	1.072	1.377		

(Vertical) 1° = .075 Volts (Horizontal) 1° = .060 Volts Reaction Time= .235 Sec

				270th M	eridian				
Velocity ⁰ /Sec	1	2	4	8	12	16	20		
Volt Mean					•				
Volt S.D.					·				
Degree Mean									
Degree S.D.									
			·	90th Me	ridian				
Volt Mean									
Volt S.D.									
Degree Mean									
Degree S.D.									
				0 Merid	lan				
Volt Mean	.891	.865	.806	.583	.361	+.023	120		
Volt S.D.	.0460	.0524	.0427	.0670	.0668	.0421	.0180		
Degree Mean	14.85	14.42	13.43	9.72	6.02	+.38	-:30	ļ	<u> </u>
Reaction Correction Factor	. 24	.47	.94	1.88	2.82	3.76	4.70		
Corrected Degree Mean	15.09	14.89	14.37	11.60	8.84	4.14	4.40		
Degree S.D.	.767	.873	.712	1.117	1.113	.702	.300		
		-		180th N	feridian				
Volt Vean	.859	.777	.758	.585	.294	175	+.0365		
Volt S.D.	. 0335	.0599	.0451.	.0477	.1677	. 1439	.0617	<u> </u>	
Degree Mean	14.32	12.95	12.63	9.75	4.99	-2.92	+.61		
Reaction Correction Factor	. 24	.47	. 94	1.88	2.82	3.76	4.70		
Corrected Degree Mean	14.56	13.42	13.57	11.63	7.81	6.68	4.09		
Degree S.D.	. 5 58	. 998	.752	.795	2.795	2.398	1.028		

Subject # 1 Procedure # 2 Contrast 43%

(Vertical) 1°= .075 Volts (Horizontal) 1°= .060 Volts Reaction Time= .235 Secs

				270th N	feridian				·
Velocity 0/Sec	1	2	4	8	12	16	20		
Volt Mean	1.127	1.154	1.052	.810	.516	.233	.202		+
Volt S.D.	.0141	.0325	.0432	.0315	.0420	.0326	.0222		
Degree Mean	15.03	15.39	14.03	10.80	6.88	3.11	2.69		
Degree S.D.	.188	.433	.576	.420	.560	.435	.296		
				90th Me	ridian				
Volt Mean	.953	.935	.847	.560	.341	.255	. 185		
Volt S.D.	.0248	.0243	.0334	.0583	.0301	.0230	.0349		
Degree Mean	12.71	12.47	11.29	7.47	4.55	3.40	2.47		
Degree S.D.	.331	.324	. 445	.777	.401	.307	.465		
				0 Merid	an				
Volt Mean	.836	.778	.714	.508	.262	+.032	126		
Volt S.D.	.0449	.0191	.0611	0794	.0998	.0514	.0599		
Degree Mean	13.93	12.97	11.90	8.47 .	4.37	+.53	-2.10		
Reaction Correction Facto	.24	.47	94	1.88	2.82	3.76	4.70		
Corrected Degree Mean	14.17	13.44	12.84	10.35	7.19	4.29	2.60	<u> </u>	
Degree S.D.	.748	.318	1.018	1.323	1.663	.857	. 998		
				180th M	eridian				
Volt Mean	.882	.767	.676	.519	. 328	015	÷.069		
Volt S.D.	.0358	.0791	. 0520	.0555	.0752	.0917	.0641		
Degree Mean	14.70	12.78	11.27	8.65	5.47	25	+1.15		
Reaction Correction Facto	. 24	.47	.94	1.88	2.82	3.76	4.70		
Corrected Degree Mean	14.94	13.25	12.21	10.53	8.29.	4.01	3.55		
Degree S.D.	.597	1.318	.867	.917 .	1.253	1.528	1.068		
							-		

Subject # 1 p.P.
Procedure # 2
Contrast 34%

(Vertical) 1° = .075 Volts (Horizontal) 1° = 060 Volts Reaction Time=235 Secs

				270th M	eridian			
elocity ⁰ /Sec	1	2	4	8	12	16	20	
/olt ·lean	1.024	.967	.772	.446	.200	.150	. 391	
Volt S.D.	.0334	.0154	.0363	.0487	.0407	.0168	.0364	
Degree Mean	13.65	12.89	10.29	5.95	2.67	2.00	1.21	
Degree S.D.	. 445	.205	. 484	.649	.543	. 224	.485	
				90th Me	ridian			
Volt Mean	. 797	.726	.669	.307	.150	.080	.017	
Volt S.D.	.0193	.0195	.0240	.0147	.0268	.0125	.0153	
Degree Mean	10.63	9.68	8.92	4.09	2.00	1.07	.23	
Degree S.D.	. 257	.260	.320	.196	.357	. 167	.204	
				0 Merio	dan			
Volt Mean	. 707	.711	.554	.369	+.084	002	070	
Volt S.D.	.0381	.0603	.0395	.0811	.1111	.0176	.0683	
Degree Mean	11.78	11.85	9.23	6.15	+1.40	03	-1.17	
Reaction Correction Factor	. 24	.47	.94	1.88	2.82	3.76	4.70	
Corrected Degree Mean	12.02	12.32	10.17	8.03	4.22	3.73	353	
Degree S.D.	. 635	1.005	. 658	1.352	1.852	. 293	1.138	
				180th 1	vleridian			
Volt Mean	. 746	. 684	.601	.252	136	+.024	+.080	
Volt S.D.	.0168	.0703	.0574	.0589	.1098	.1329	.1454	
Degree Mean	12.43	11.40	10.02	4.20	-2.27	+.40.	+1.33	
Reaction Correction Facto	.24	.47	. 94	1.88	2.82	3.76	4.70	_
Corrected Degree Mean	12.67	11.87	10.96	6.08	5.09	3.36	3.37	
	.280	1.172	.957	.982	1.83	2.215	2.423	

Subject # 1 D.P. Procedure # 2 Contrast 27*

(Vertical) 1⁶ = .075 Volts (Horizontal) 1⁰ = .060 Volts Reaction Time= .235 secs

				270th M	eridian	*(Actua	1 31% Con	rast)	
velocity ⁰ /Sec	1	2	4	8	12	16	20		
Volt Mean	.895	.860	.656	.354	.215	.163	.120		
Volt S.D.	.0269	.0366	.0349	.0456	.0370	.0535	.0277	•	
Degree Mean	11.93	11.47	8.75	4.72	2.87	2.17	1.60		
Degree S.D.	.359	. 488	.465	.608	.493	.713	.369		
				90th Me	ridian	*(Actua	1 31% Con	rast)	
Volt Mean	.800	.755	.555	.358	.297	.148	.064		
Velt S.D.	.0467	.0208	.0590	.0136	.0165	.0388	.0273		
Degree Mean	10.67	10.07	7.40	4.77	3.96	1.97	.85		
Degree S.D.	. 623	.277	.787	.181	.220	.517	.364		
				0 Meric	lan				
Volt Mean	.625	. 555	.509	.366	+.072	096	148		
Volt S.D.	.0182	.0448	.0319	.1573	.0629	.0347	.1286		
Degree Mean	10.83	9.25	8.48	6.10	+1.20	-1.60	-2.47		
Reaction Correction Factor	.24	.47	.94	1.88	2.82	3.76	4.70		
Corrected Degree Mean	11.07	9.72	9.42	7.98	4.02	2.16	2.23		
Degree S.D.	.303	.747	.532	2.622	1.048	.578	2.143		
·				180th M	eridian				
Volt Mean	.607	.621	.544	.271	091	+.039	+.319		
Volt S.D.	.0392	.0349	.0858	.0905	.0568	.0787	.1427		
Degree Mean	10.12	10.17	9.07	4.52	-1.52	+ . 65.	+5.32		
Reaction Correction Facto	. 24	.47	.94	1.88	2.82	3.76	4.70		
Corrected Degree Mean	10.36	10.64	10.01	6.40	4.34	3.11	62*		
Degree S.D.	. 653	.582	1.430	1.508	.947	1.312	2.378	·	

Subject 1 D.P. Procedure #3

(Vertical) 1° = .070 Volts (Horizontal) 1° = .060 Volts

Contrast	68%	54%	43%	34%	27%			
	•		270th M	eridian				
Volt Mean	.845	.569	.385	. 268	. 194			
Volt S.D.	.0105	.0304	.0456	.0261	.0145			
Degree Mean	12.07	8.13	5.50	3.83	2.77			
Degree S.D.	.150	.434	.651	.373	.207			
			90th Me	ridian				
Volt Mean	.784	.674	. 465	.291	. 252			
Volt S.D.	.0443	.0171	.0333	.0179	.0318	-		
Degree Mean	11.20	9.63	6.64	4.16	3.60			
Degree S.D.	. 633	.244	.476	.256	. 454			
,			0 Merio	ian				
Volt Mean	1.046	.861	. 668	.526	.379			
Volt S.D.	.0232	.0293	.0396	.0360	.0221			
Degree Mean	17.43	14.35	11.13	8.77	6.32			
Degree S.D.	. 383	. 488	. 660	.600	.368			
			180th M	eridian				
Volt Mean	.843	.662	. 566	.352	. 153			
Volt S.D.	.0447	.0077	.1025	.0363	.0249			
Degree Mean	14.05	11.03	9.43	5.87	2.55		• • • • • • • • • • • • • • • • • •	
Degree S.D.	. 745	. 128	1.708	.605	.415			

(Vertical) 1°=.070 Volts (Horizontal) 1°=.060 Volts

Contrast	68%	54%	43%	34%	27%		
•			270th N	eridian			
Volt Mean	.938	.690	.612	.466	.334		
Volt S.D.	.0220	.0308	.0244	.0208	.0483		
Degree Mean	13.40	9.86	8.74	6.66	4.77		
Degree S.D.	.314	. 440	.349	.297	.690		
			90th M	eridian			
Volt Mean	.776	.535	. 383	.281	.214		
Volt S.D.	.0239	.0299	.0135	.0127	.0466		
Degree Mean	11.09	7.64	5.47	4.01	3.06		
Degree S.D.	.341	.427	.193	.181	.666		
	•		0 Merio	ian	N=10		
Volt Mean	.842	. 793	.702	.594	. 407		
Volt S.D.	.0710	.0313	.0421	.0146	.0162		
Dégree Mean	14.03	13.22	11.70	9.90	6.78		
Degree S.D.	1.183	·. 522	. 702	.243	.270		
			180th M	eridian			
Volt Mean	.874	.766	. 644	.549	. 425		
Volt S.D.	.0244	.0309	.0337	. 0395	.0414		
Degree Mean	14.57	12.77	10.73	9.15	7.08		
Degree S.D.	. 407	.515	. 562	. 658	. 690		
	•						
			•				

Subject # 4 RH Procedure #1 Contrast 68%

(Vertical) 1°= .081 Volts (Horizontal) 1°= .060 Volts Reaction Time= .237 sec

				270th M	eridian			
Velocity ⁰ /Sec	1	2	4	8	12	16	20	
Volt Mean				1.078		.643		
Volt S.D.	Sees to	top		.0619		.0299		
Degree Mean				13.31		7.94		
Degree S.D.				.764		.369		
				90th Me	ridian			
Volt Mean				1.023		.645		
Volt S.D.				.0835		.0448		
Degree Mean	Sees at	Bottom		12.63		7.96		
Degree S.D.				1.031		. 5 53		
				0 Merid	an			
Volt Mean	1.70	1.76	1.70	1.55		.48		
Volt S.D.	.0378	.0589	.0586	.1374		.0568		
Degree Mean	28.33	29.33	28.33	25.83		8.00		
Reaction Correction Factor	. 24	.47	.95	1.90	2.84	3.79	4.74	
Corrected Degree Mean	28.57	29.80	29.28	27.73		11.79		
Degree S.D.	. 630	. 982	.977	2.290		.947		
				180th M	eridian			
Volt Mean	1.67	1.63	1.60	1.06		. 46		
Volt S.D.	.0920	.0769	.1285	.2475	**************************************	.1178		
Degree Mean	27.83	27.17	26.67	17.67		7.67		
Reaction Correction Factor	.24	.47	.95	1.90	2.84	3.79	4.74	
Corrected Degree Mean	28.07	27.64	27.62	19.57		11.46		
Degree S.D.	1.533	1.282	2.142	4.125		1.963		<u>;</u> ; 1

Subject # 4 RH Procedure #1 Contrast 43%

(Vertical) 1°= .081 Volts (Horizontal) 1°= .060 Volts Reaction Time= .237 sec

				270th M	ridian			
Velocity ⁰ /Sec	1	2	4	8	12	16	20	<u> </u>
Volt Mean	1.107	1.080	.912	:519		.171		
Volt S.D.	.0513	.0683	.0529	. 0823		.0326		
Degree Mean	13.67	13.33	11.26	6.41		2.11		
Degree S.D.	.633	.843	.653	1.016		.402		
				90th Me	idian			
Volt Nean	.963	1.020	.894	.643		.310		
Volt 5 D	. 0546	.0446	.0487	.0303		.0145		
Degree Mean	11.89	12.59	11.04	7.94		3.83		
Degree S.D.	.674	.551	.601	.374		.179		
				0 Merio	dan			
Volt Mean	1.35	.99	.87	- 63	.09			
Volt S.D.	.3306	.0662	.0911	.0910		.1295		
Degree Mean	22.50	16.50	14.50	10.50	•	1.50		
Reaction Correction Facto	. 24	.47	.95	1.90	2.84	3.79	4.74	
Corrected Degree Mean	22.74	16.97	15.45	12.40		5.29		
Degree S.D.	5.510	1.103	1.518	1.517		2.158		
				180th	Meridian			
Volt Mean	1.26	1.34	.74	+ ,51		±21		
Volt S.D.	. 1582	.0568	.1009	.0466	.1380			
Degree Mean	21.00		12.33	8.50		3.50		
Reaction Correction Fact	. 24	.47	. 95	1.90		3.79		
Corrected Degree Mean	21.24	22.80	13.28	10.40		7.29		
Degree S.D.	2.63	7 .947	1.682	.777		2.300		

Subject # 4 RH Procedure #1 Contrast 27%

(Vertical) 1°= .081 Volts (Horizontal) 1°= .060 Volts Reaction Time= .237 (sec

				270th M	eridian			
Velocity 0/Sec	1	2	4	8	12	16	20	
Volt Mear	.609	.499	.328	.112 "		1		
Volt S.D.	.0134	.0308	.0408	.0410		can't see		
Degree Mean	7.52	6.16	4.05	1.38				
Degree S.D.	. 165	.380	.504	.506				
				90th Me	ridian			
Volt Mean	.627	. 592	. 364	.248		.0666		
Volt S.D.	.0274	.0474	.0409	.0356		.0509		
Degree Mean	7.74	7.31	4.49	3.06		.82		
Degree S.D.	. 338	. 585	.505	. 440		.628		
				0 Meric	lian			
Volt Vean	.66	.60	.50	₹31		\$ 20		
Volt S.D.	. 0620	.0877	.0785	.0820		.0899		
Degree Mean	11.00	10.00	8.33	-5.17		+333.		
Reaction Correction Facto	.24	.47	. 95	1.90	2.84	3.79	4.74	
Corrected Degree Mean	11.24	10.47	9.28	7.07		. 46		
Degree S.D.	1.033	1.462	1.308	1.367		1.498		<u>.</u>
				180th N	Meridian			
Volt Vean	.64	.59	.52	+.19		23		
Volt S.D.	.0614	.0512	.0886	.0740		.1044		
Degree Mean	10.67	9.83	8.67	+3.17		-3.83		
Reaction Correction Factor	.24	:47	.95	1.90		3.79		
Corrected Degree Mean	10.91	10.30	9.62	5.07		04	<u> </u>	
Degree S.D.	1.023	.853	1.477	1.233		1.740		

Subject # 4 RH Procedure # 2 Contrast 68% (Vertical) 1°=.075 Volts (Horizontal) 1°= .060 Volts Reaction Time= .237 sec

	1								
				270th 1	Meridian				
Velocity ⁰ /Sec	1	2	4	8	12	16	20		
Volt Mean					1.106	.881	.767		
Volt S.D.	Sees a	top			.0863	.0219	.0540		
Degree Mean					14.75	11.75	10.23		
Degree S.D.				7	1.151	.292	.720		
				90th M	eridian	1.275	.120		
Volt Mean					.968	.762	.626		
Volt	See at	pottom			.0351	.0348	-		
S D Degree Mean		1				+	.0293		
			-	1	12.91	10.16	8.35		
Degree S.D.			 		. 468	.464	.391		
Volt				0 Merio	ilan				
Mean Volt	1.68	1.63	1.50	1.35		.624			
S.D.	.0864	.1352	.0850	.0923		.1150		-	
Degree Mean	28.00	27.17	25.00	22.50	•	10.40			
Reaction Correction Factor	. 24	.47	. 95	1.90	2.84	3.79	4.74		
Corrected Degree Mean	28.24	27.64	25.95	24.40		14.19			
Degree S.D.	1.440	2.253	1.417	1.538		1.917			
				180th M	eridian				
Volt Mean	1.84	1.76	1.57	1.52		.62			
Volt S.D.	. 0856	.0657	.1439	.0564		.1338		104	
Degree Mean	30.67	29.33	26.17	25.33		10.33.			
Reaction Correction Factor		.47	.95	1.90		3.79			
Corrected Degree Mean	30.91	29.80	27.12	27.23	·	14.12		-	
Degree S.D.	1.427	1.095	2.398	.940		2.230			
~ · · · · · · · · · · · · · · · · · · ·		//	12.2/0	., 40]	2.230			

Subject # 4 RH Procedure # 2 Contrast 43% (Vertical) $1^0 = .075$ Volts (Horizontal) $1^0 = .060$ Volts Reaction Time= .237 sec

				270th M	eridian			
Velocity ⁰ /Sec	1	2	4	8	12	16	20	
Volt Mean	1.064		1.125	.844		.574		
Voit S.D.	.0955		.0601	.0579		.0724		
Degree Mean	14.19		15.00	11.25		7.65		
Degree S.D.	1.273		.801	.772		.965		
				90th Me	ridian			
Volt Mean	1.054		1.038	.722		.494		
Volt S D	. 0429		.0258	.0502		.0349		
Degree Mean	14.05		13.84	9.63		6.59		
Degree S.D.	.653		.344	.669		. 465		
				0 Merid	an			
Volt . Mean	. 94	1.03	.85	+.60		+.17		
Volt S.D.	. 0579	.1841	.0110	.0554		.0354		
Degree Mean	15.67	17.17	14.17	-10.00	•	2.83		
Reaction Correction Factor	24	.47	.95	1.90	2.84	3.79	4.74	
Corrected Degree Mean	15.91	17.64	15.12	11.90		6.62		
Degree S.D.	. 965	3.068	. 183	. 923		. 590		
	•	_		180th M	eridian			
Volt Mean	.86	1.19	.74	.61		.206		
Volt S.D.	. 1280	.1500	.0872	.1172		.0684		
Degree Mean	14.33	19.83	12.33	10.17		3.43		
Reaction Correction Factor	.24	.47	.95	1.90		3.79		
Corrected Degree Mean	14.57	20.30	13.28	12.07		7.22		
Degree S.D.	2.133	2.500	1.453	1.953		1.140		
1		•	•					

Subject # 4 RH Procedure # 2 Contrast 27%

(Vertical) 1°= .075 Volts (Horizontal) 1°= .060 Volts Reaction Time= .237 Volts

				270th M	eridian			`
Velocity ⁰ /Sec	1	2	4	8	12	16	20	
Volt Mean	.637	.699	.495	+.279		+.089		
Volt S.D.	.0622	,0624	.0431	.0275		.0189		
Degree Mean	8.49	9.32	6.60	3.72		1.19		
Degree S.D.	.829	.832	.575	.367		.252		
				90th Me	ridian			
Volt Mean	.697		.588	.454		.076		
Volt S.D.	.0130	•	.0578	.0556		.0234		
Degree Mean	9.29		7.84	6.05		1.01		
Degree S.D.	.573		.771	.741		.312		
				0 Merid	llan			
Volt Mean	.66	.57	.56	+.33		13		
Volt S.D.	.1018	.1137	.0554	.2043		.0444		
Degree Mean	11.00	9.50	9.33	+5.50	•	-2.17		
Reaction Correction Factor	.24	.47	. 95	1.90	2.84	3.79	4.74	
Corrected Degree Mean	11.24	9.97	10.28	7.40		1.62		
Degree S.D.	1.697	1.895	. 923	3.405		.740		
				180th N	Meridian			
Volt Mean	.70	. 63	.59	36		+.038		
Volt S.D.	.0288	.0311	.0663	.0694		.1684		
Degree Mean	11.67	10.50	9.83	-6.00		+.63		
Reaction Correction Fact	.24	.47	. 95	1.90		3.79		
Corrected Degree Mean	11.91	10.97	10.78	7.90		3.16		
Degree S.D.	.480	.518	1.105	1.157		2.807		

Subject #4 R.H. Procedure #3

(Vertical) 1°=.070 Volts (Horizontal) 1°=.060 Volts

Contrast	68 %	54 %	43 ક	34 %	27 %			
			270th Me	ridian				
Volt Mean	1.037		.656		.378			
Volt S.D.	.0268		.0517		.0319			
Degree Mean	14.81		9.37		5.40			
Degree S.D.	. 383		.739		.456			
. Transport of the second			90th Mer	dian			 	·
Volt Mean	.940		.565		.364			
Volt	.0450		.0211		.0268			
Degree Mean	13.43		8.07		5.20			
Degree S.D.	. 643		.301		.383			
			0 Meridia	ın				
Volt Mean	1.523		.786	***************************************	.588			
Volt S.D.	.0541		.0403		.0266			
Degree Mean	25.38		13.10		9.80			
Degree S.D.	.902		.672	- •	. 443			
			180th Me	idian			·	
Volt Mean	1.682		.769		.571	-		
Volt S.D.	.0663		.0427		.0312			
Degree Mean	28.03		12.82		9.52			
Degree S.D.	1.105	_	.712		5.20			 100 10000
•								
,								
				<u></u>				

Subject #4 R.H. Procedure #4

	68 %	54 %	43 %	34 %	27 %		
Contrast			270th Me	ridian			
Volt Mean	.847		.576		.347		
Volt S. D.	0396		.0657		.0344		
Degree Mean	11.29		7.68		4.63		
Degree S.D.	. 528		.876	.459	·		
			90th Mer	dian			
Volt Mean	.778		.578		.315		
Volt S.D.	.0773		.0231		.0235		
Degree Mean	10.37		7.71		4.20		
Degree S.D.	1.031		.308		.313		
			0 Meridi	an			
Volt Mean	1.495		.816		.467		
Volt S.D.	.0373		.0680		.0354		
Degree Mean	24.92		13.60	- •	7.78		
Degree S.D.	.622		1.133		.590		
			180th M	eridian			
Volt Mean	1.661		.733		.477		
Volt S.D.	.0648		.0347		. 0583		
Degree Mean	27.68		12.22		7.95		
Degree S.D.	1.080		.578		.972		
							·

Subject # 3 DH Procedure # 1 Contrast 68% (Vertical) 1° = 081 volts (Horizontal) 1° = .060 volts Reaction Time= .224 sec

	1	1	1		1			1	
				270th Me	ridian				
Velocity º/Sec	1	2	4	8	12	16	20		
Volt Mean	SEES	TO TOP				.991			
Volt S.D.						.0715			
Degree Mean						12.23			
Degree S.D.						. 883			
				90th Me	ridian				
Volt Mean	SEES	TO BOTT	ОМ	1.079		.747			
Volt S.D.				.0484		.0687		. •	
Degree Mean				13.32		9.22			
Degree S.D.				.598		.848			
				0 Meri	lian	 	 		
Volt Mean	1.742		2.048	1.504		. 644			
Volt S.D.	.2991		. 1597	.1405	•	.0865		<u> </u>	
Degree Mean	29.03		34.13	25.07		10.73			
Reaction	r .22	. 45	.90	1.79	2.69	3.58	4.48		
Corrected Degree Mean	29.25		35.03	26.86		14.31	7.30		
Degree S.D.	4.985	2.662	2.342		******	1.442		1.	
				180th Mer	idian				
Volt Mean	1.898	2.082	1.950	1.296	-	.604			
Volt S.D.	. 1047	.0540	. 1512	.1890		.0241			
Degree Mean	31.63	34.70	32.50	21.60	•	10.07			
Reaction Correction Factor	. 22	. 45	.90	1.79	2.69	3.58	4 40		
Corrected Degree Mean	31.85	35.15	33.40		4.03		4.48		···
Degree S.D.	1.741	.900	2.520	3.150	·	.402	•		

Subject # 3 DH Procedure # 1 Contrast 43% (Vertical) 1^0 = .081 volts (Horizontal) 1^0 = .060 volts Reaction Time= .224 sec

	270th Mer	ridian				
4	8	12	16	20		
1.126	.875		. 549			· -
. 0505	.0345		.0483			
13.90	10.80		6.78			
. 623	.426		. 596			
	90th Mer	idian				
.896	.829		. 435			
.0372	.0474		. 0559			
11.06	10.23		5.37			
. 459	. 585		.690			
	0 Merid	lian				
.882	. 590		.306			
.0342	.0608		.0378			
14.70	9.83		5.10			
.90	1.79	2.69	3.58	4.48		
15.60	11.62		8.68			
.570	1.013		. 630			
	180th Mer	idian				
.768	. 479		.234	 		
.0466	.1060		.0614			
12.80	7.98		3.90			
.90	1.79	2.69	3.58	4.48		
13.70	9.77		7.48			
. 777	1.767		1.023			
	13.70	13.70 9.77	13.70 9.77	13.70 9.77 7.48	13.70 9.77 7.48	13.70 9.77 7.48

Subject # 3 DH Procedure # 1 Contrast 27% (Vertical) $1^0 = .081$ volts (Horizontal) $1^0 = .060$ volts Reaction Time= .224 sec

· · · · · · · · · · · · · · · · · · ·				270th M	eridian					· · · · · · · · · · · · · · · · · · ·
Velocity ⁰ /Sec	1	2	4	8	12	16	20		_	
Volt	 			+	+			_	· ·	
Mean	.841		.659	.518		.106				
Volt S.D.	.0321		.043	.0552		.0175				
Degree Mean	10.38		8.14	6.40		1.31	·			
Degree S.D.	. 396		. 532	.681		.216				
				90th Me	ridian					
Volt Mean	. 793		.596	. 453		.250				•
Volt S:D	06:17		.0717	.0445		.0474				
Degree Mean	9.79		7.36	5.59		3.09				
Degree S.D.	.774		. 885	. 549		. 585		-		
				0 Meri	dian					
Volt	724		592	.340		+.066				
Volt S.D.	.0351		.0890	.0930		.0207				i
Degree Mean	12.07		9.87	5.67	•			+		
Reaction Correction Factor		. 45	.90	1.79	2.69	3.58	4.48			
Corrected		1.20		1	2.03	3.30	4.40			
Degree Mean	12.29		10.77	7.46		2.48				, (8.3)
Degree S.D.	. 585		1.483	1.550		3 45				<u>:</u>
				180th Me	ridian					
Volt Mean	. 690		.532	+. 282		- 114				
Volt S.D.	. 0464		.0432	.0427		.0677				·
Degree Mean	11.50		8.87	+4.70		-1.90				
Reaction Correction Factor	. 22	. 45	.90	1.79	2.69	3.58	4.48			
Corrected						 		 		
Degree Mean	11.72		9.77	6.49		1.68				
Degree S.D.	. 773		. 720	.712		1.128				

Subject # 3 DH Procedure # 2 Contrast 68% (Vertical) 1° = .070 volts (Horizontal) 1° = .060 volts Reaction Time= .224 sec

				270th Me	ridian			
Velocity ⁰ /Sec	1	2	4	8	12	16	20	
Volt Mean				. 966	.861	.791	.671	
Volt S.D.	SEE TO	воттом		.0480	.0449	.0531	.0391	
Degree Mean				13.80	12.30	11.30	9.59	
Degree S.D.				.686	.641	.759	. 559	-
				90th Me	idian			
Volt Mean					.940	.613	.521	
Volt S. D.	SEE TO	ТОР			.0356	.0214	.0479	
Degree Mean					13.43	8.76	7.44	
Degree S.D.					.509	.306	. 684	
				0 Meri	d ian			
Volt Mean	1.768		1.680	1.199		.602		
Volt S.D.	. 0432		.0809	. 1843		. 1344		
Degree Mean	29.47		28.00	19.98	•	10.03		
Reaction Correction Factor	. 22	. 45	.90	1.79	2.69	3.58	4.48	
Corrected Degree Mean	29.69		28.90	21.77		13.61		
Degree S.D.	. 720		1.348	3.072		2.240		
				180th Me	ridian			
Volt Mean	2.041		1.910	1.615		.841		
Volt S.D.	. 0853		. 2046	. 1381		.1486		
Degree Mean	34.02		31.83	26.92		14.02		
Reaction Correction Factor	. 22	. 45	.90	1.79	2.69	3.58	4.48	
Corrected Degree Mean	34.24		32.73	28.71		17.60		
Degree S.D.	1.422		3.410	2.302		2.477		

Subject # 3 DH Procedure # 2 Contrast 43%

(Vertical) 10 = .070 volts (Horizontal) 10 = .060 volts Reaction Time= .224 Sec

			ļ	270th Me	idian				
Velœity º/Sec	1	2	4	8	12	16	20		
Volt Mean	1.113		. 899	.649	.560	. 470	. 334		
Volt S.D.	. 0460		.0273	.0452	.0398	.0482	. 0482		
Degree Mean	15.90		12.84	9.27	8.00	6.71	4.77		
Degree S.D.	.657		. 390	.646	.569	. 689	. 689		
•				90th Me	idian				
Volt Mean	. 875	.867	. 709	.564	. 456	.341	.290		
Volt S.D.	. 0831	.0740	. 0740	.0389	.0380	.0542	.0187		
Degree Mean	12.50	12.39	10.13	8.06	6.51	4.87	4.14		
Degree S.D.	1.187	1.057	1.057	.556	. 543	.774	.267		
				0 Meri	dian				
Volt Mean	. 972		. 883	.741		.374			
Volt S.D.	.1168		. 0603	. 1252		.0751			
Degree Mean	16.20		14.72	12.35		6.23			
Reaction Correction Factor	. 22	. 45	.90	1.79	2.69	3.58	4.48		
Corrected Degree Mean	16.42		15.62	14.14		9.81			
Degree S.D.	1.947		1.005	2.086		1.252			
				180th Me	ridian				
Volt Mean	. 888		. 890	. 683		. 306			
Volt S.D.	.0457		.0559	.0921		.0867			
Degree Me an	14.80		14.83	11.38		5.10			
Reaction Correction Factor	. 22	. 45	.90	1.79	2.69	3.58	4.48		
Corrected Degree Mean	15.02		15.73	13.17		8.68		•	
Degree S.D.	.762		. 932	1.535		1.445			

Subject # 3 DH Procedure # 2 Contrast 27%

(Vertical) 10 = .070 volts (Horizontal) 10 = .060 volts Reaction Time= .224 Sec

	_					***************************************	11110 .2.	24 Sec	
				270th M	Meridian				
Velocity ⁰ /Sec	1	2	4	8	12	16	20		
Volt Mean	.789		.742	.496		.314			
Volt S.D.	.0252		.0253	.0434		.0748			
Degree Mean	11.27		10.60	7.09		4.49			
Degree S.D.	.360		.361	. 620		1.069			
				90th	Meridian				
Volt Mean	.690		.700	.534		.415			
Volt S.D.	.0093		.0210	.0512		.0375			
Degree Mean	9.86		10.00	7.63		5.93			
Degree S.D.	. 133		.300	.731		.536			
				0 Me	ridian				
Volt Vean	.717		.624	.380		.164			
Volt S.D.	.0284		.0300	.0388		.1231			
Degree Mean	11.95		10.40	_ 6_33		2.73		·	
Reaction Correction Fact	or.22	. 45	.90	1.79	2.69	3.58	4.48		
Corrected Degree Mean	12.17		11.30	8.12		6.31			
Degree S.D.	.473		.500	.647		2.052			
				180th M	eridian				
Volt Mean	.748		.664	442		030			
Volt S.D.	.0434		.0788	.1579		.0547			
Degree Mean	12.47		11.07	-7.37		50			
Reaction Correction Factor	.22	. 45	. 90	1.79	2.69	3.58	4.48		
Corrected Degree Mean	12.69		11.97	8.16		4.08			
Degree S.D.	. 723		1.313	2.632		.912			
							 		
	•	•						1	1

Subject # 3 D.H. Procedure # 3

(Vertical) 10 = .070 volts (Horizontal) 10 = 060 volts

Contrast	68%	54 %	43 %	34 %	27 %				
				eridian					
Volt				1	 	-	1		· ·
Mean Volt	.913	.790	.647	.450	.254		ļ		
S.D.	.0828	. 0205	.0338	.0729	.0438			_	
Degree Mean	13.04	11.29	9.24	6.43	3.63				
Degree S.D.	1.183	. 293	. 483	1.041	.626				
			90th 1	eridian					
Volt Nean	.667	.562	.537	.349	.287				
Volt S.D.	.0387	.0422	.0262	.0416	.0210				
Degree Mean	9.53	8.03	7.67	4.99	4.10				
Degree S.D.	.553	. 603	.374	.594	.300				
•		,	0 M	eridian					
Volt Mean	.829	.767	. 623	.474	.260]			
Volt S.D.	.0482	.0238	.0276	. 0586	.0295				
Degree Mean	13.82	12.78	10.38	7.90	4.33		-		
Degree S.D.	.803	.397	. 460	.977	.492				
			180th N	leridian					
Volt Mean	.901	.755	. 644	. 539	.417				
Volt S.D.	.0454	. 0389	.0350	.0336	.0354				
Degree Mean	15.02	12.58	10.73	8.98	6.95				
Degree S.D.	.757	.648	.583	.560	.590				
		.040	.000	.000	.000		_		•

Subject # 3 DH Procedure # 4

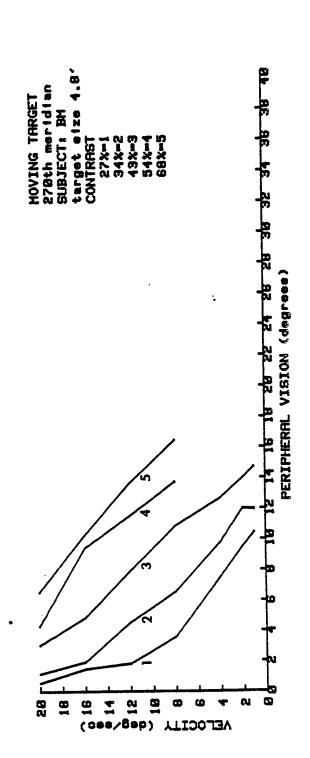
Contrast	68 %	54 %	43 %	34%	27 %		
			270th Me	ridian			
Volt Mean	869	•	607		.310		
Volt S.D.	.0284		.0355		.0289		
Degree Mean	12.41		8.67		4.43		
Degree S.D.	.406		.507		.413		
			90th M	eridian			
Volt Mean	828		.563		.328		
Volt S.D.	0199		.0224		.0383		
Degree Mean	11.83		8.04		4.69		
Degree S.D.	.284		.320		.547		
			0 Me	ridian			
Volt Mean	.811		.706		. 483		
Volt S.D.	.0779		.0743		.0667		
Degree Mean	13.52		11.77		8.05		
Degree S.D.	1.298		1.238		1.112		
			180th	Meridian			
Volt Mean	949		.760		.515		
§ 개 .	.0317		.0374		.0404		
Degree Mean	15.82		12.67		8.58		
Degree S.D.	.528		. 623		. 673		
··							
•							

APPENDIX C

Meridian Plots for Each Subject and Procedures

Mean Peripheral Vision - degrees from fovea

	***	270th Meridian	li.an	Subject: I	BM Pro	rocedure #1		
_	Velocity	_	1 2	4	8	12	. 16	20
•	ובוחרוה	•			16.46	13.65	10.28	6.57
_	mean				437	869	604	1.036
	S.U.				177	14:5%	0 1.1.	23
_	mean				13.74	11.0%	4 4 4 4	200
	. C.				. 383	- {	1.571	-77-5
- 1	ne ou	11, 70	13.96	ł	10.85		4.68	2.00
			247				1.086	.348
	s.u.	01.	7 .6.14	- }		22.	10	1 17
l l	mean	11.96	12.00	9.78	0.58	4.57	ナハ・T	71.1
	-	788	306			.443	044.	004.
- 1	3.0.		12.0	L	r	1.83	1.47	.57
	mean	tt. 01	10.		`	976	333	378
	s.D.	. 620	184°	400		002		200
1	Velocity	1	2	4	æ —	21	or l	· 707
	•	-	-	•				



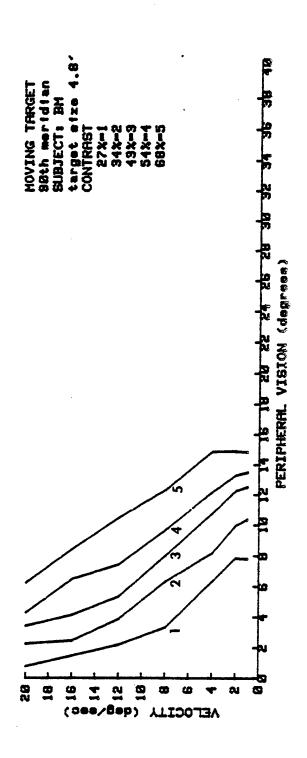
Mean Peripheral Vision - degrees from fovea

Procedure #1

Subject: BM

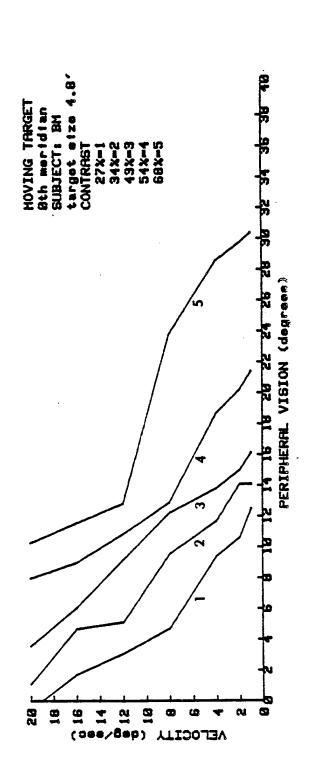
90th Meridian

	1		ı				ı		ı		·}
1 20	6.21	.338	4.26	. 514	3.38	438	2.22	.357	74.	.174	20
16	8.40	969.	74.9	.393	4.10	.277	2,42	.231	1.44	.333	16
12	10.48	.481	7.42	.442	5.32	.380	3.85	.311	2.17	.216	12
80	12,32	. 598	69.6	.311	8.00	.574	6.31	.412	3.30	.420	8
4	14.86	.420	12,16	.590	10.75	.228	8.16	.654	6.32	.691	Þ
.Z	14.89	.325	13.28	.314	12.25	909.	96.6	.183	7.85	644.	8
1 1	14.83	.120	13.48		12.51	-	10.36	~	7.79	.254	
Velocity	mean	5.0.	mean	S.D.	mean	S.D.	mean	S.D.	mean	S.D.	Velocity
	Contrast	%20	Contrast	24%	Contrast	43%	Contrast	34%	Contrast	%/.7	



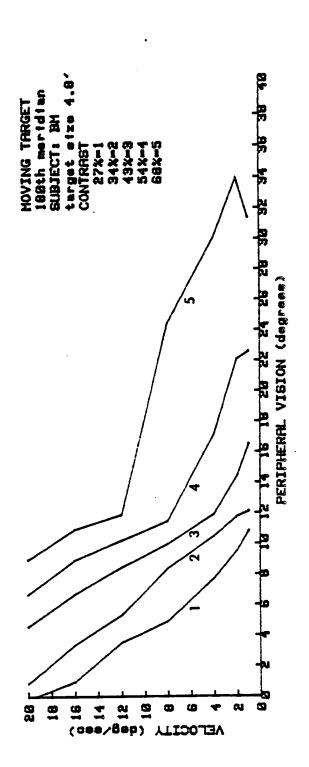
Mean Peripheral Vision - degrees from fovea

									٠			
	20	10.29	1.257	7.99	1,267	3.59	1,240	1.12	.925	55	1,382	50
1	16	11.55	1.083	8.99	1,808	6.05	1,127	4.67	1.472	1.72	. 740	16
rocedure #1	12	12.81	644.	10.84	1.007	9.18	2,128	5.11	1,110	3.08	.345	12
_ 1	8	23.78	2.540	12.88	.320	12.21	.837	9.54	1.543	4.71		
Subject: BM	4	28.57	046.	18.67	1.875	13.80	1.050	11.67	1,020	04.6	.895	4
•	2	29.70	1.392	20.17	1.343	14.97	1.288	14.07	1.310	10.60	.732	2
Oth Meridian	_	36	1.442	38	655	16.12	5.50	14.08	697	12.48	.465	1
	Velocity	mean	S. D.	mean	5.0	mean	0.5	mean	S. D.	mean	S.D.	Ve locity
		Contract	68%	Contrast	540	Contrast	%E 11	Contract	36m : 3100	Contrast	27%	27 2



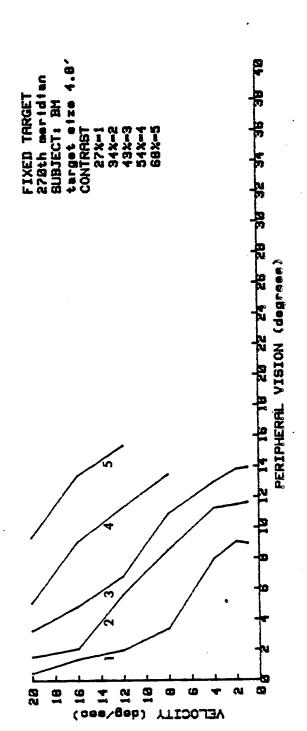
Mean Peripheral Vision - degrees from fovea

	,	1	1	1		1			1		1	
	20	8.99	6.72	1.288	4.62	1.605	89	828	18	777	 	3
 1	16	10.95	8.95	1.065	6.72	492	2 30	2.123	00	683	200	or
Procedure #1	12	11.91	10.24	760	R LR	.812	1/6 2	200	2,7,0	7.04	1:027	, 12 ,
_	æ	24.41 2.385	11 118	650	0 08	862	000	0.00	1	4.91	1.416	æ
Subject: BM	4	30.03	15:50	2,182		010	72.0	10.47	2002	7.70	1.0/2	4
0,	8	33.93	1 :00 C	10.77		2 5/2	4.5%		-	9.53	1.057	2
LBOth_Meridian	-		2,045	25		10.40	7	12	.436	10.82	. 597	1
180	201001	we locity mean	5.U.	mean	5.0.	mean	S.U.	mean	5.0.	mean	s.D.	Velocity
		Contrast	68%	Contrast	54%	Contrast	43%	Contrast	34%		%22 44	



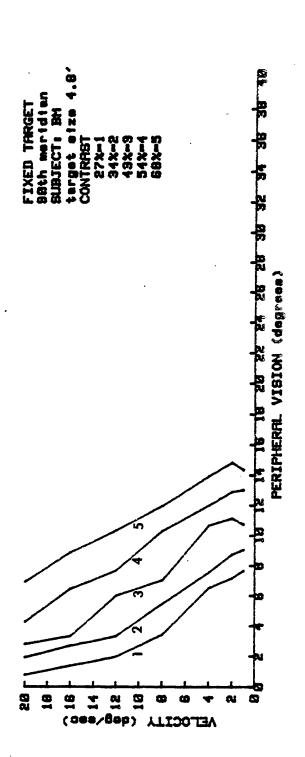
Mean Peripheral Vision - degrees from fovea

	1		i		1			1				ı	
	20	07.6	707	5, 12	• 905	3.28	.804	1.56	.675	67.	.363	20	2
1	91	13.70	076	60.6	1.212	- AA	807	00 0	307	177	396	31,7	o r
Procedure #2	12	15 27	47.5	11 36	395	7 05	0,60		672	200	77.0	/#/•	71
	&			0 - 0 7	13.47	0000	10.92 885	(00	8,56)• 41 , 03	•472	æ —
Subject: BM	4						12.97	• <05	11.27	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2/°.	, oo.	₹
	6	3					13,81	.457	11.49	•010	60.6	• 333	2
270th Meridian	-	1					13.92	527	11,64	. 323	8.95	.251	
270	'	Velocity	mean	5.0.	mean	S.D.	mean	S.D.	mean	5.0.	mean	5.0.	Velocity
			Contrast	68%	Contrast	1.1.2 1.1.2	Contrast	EC.	Contrast	%1K	Contrast	14	



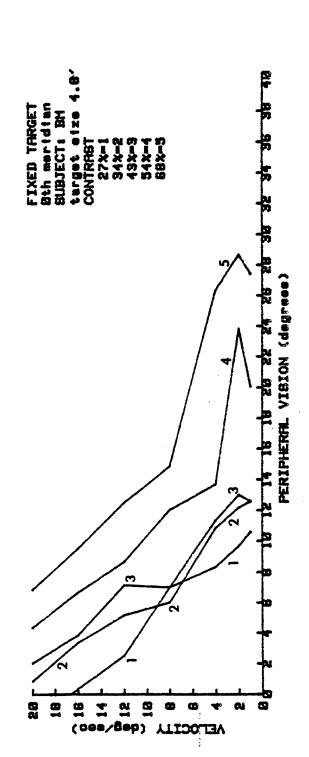
Mean Peripheral Vision - degrees from fovea

	_	-	., •	-		7			7.		6		ť	œ	
		7	× 5	77	4.27	777	2 70	7	<u>ې</u>	1.92			•	• 54	20
!	16	08 8	6.6	222	0.45	•416	3.32	200	1)40	2,68	787	1.37	- 60	(77.	16
Procedure #2	12	10, 36	£75	77,00	600)	. 335	00*9	400	6067	3,32	• 376	1.97	417	• 711	12
,		11,99	1,05	10 20	10.5¢	007*	7.03	080	1	2.45	7778•	3,41	,607	†20°	x
Subject: BM	4	13.93	755	12 01	1007	• 042	10,68	1,29	7,2,4	(·)	•661	6.51	. 513		-
lian	7	14.84	.319	12 01	700	• < 30	11,15	.716	0 72	C) •0	• 453	7.17	. 381		- -
90th Meridian	1	14.36	.913	13.0%	007	2000	10.75	• 339	0 03		•421	7.67	.347	-	→
~1	Velocity	mean	5.0.	mean	S.D.	ne on		5.0.	mean	-	3.0.	mean	5.0.	Valoriti	6100151
		Contrast	989	Contrast	%75	Contract	250 121100	4.5%	Contrast	21.0	Cont was		2.00		



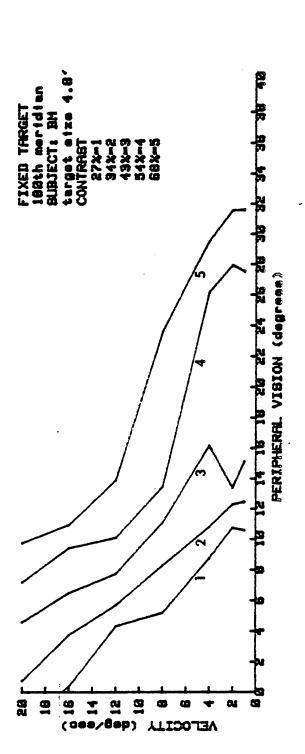
Mean Peripheral Vision - degrees from fovea

	1		ŀ		1		١				١	
	20	6.85	• 702	4.35	1,618	2,02	• 480	.85	• 778	-2.02	• 703	02 —
	16	9.52	. 558	29.9	1.587	3.85	1,205	3•35	1.437	•35	1,297	16
Procedure #2	12	12,51	.878	89*8	. 863	7,18	• 465	5,18	1,387	2,51	• 682	12
1	8	14.84	1.775	12,01	•617	7.01	1,063	6,01	1,213	7.01	1,522	8
Subject: BM	4	26.33	2,607	13.67	. 893	11,33	1.293	10,83	.932	8,33	1,090	4
	2	28.67	1,278	23,83	2,912	13,00	099•	12,17	.383	29.6	.657	2
Oth Meridian	-	27.42	.925	20.08	4.657	12,58	.657	12,58	.278	10,58	.692	-
	Velocity	mean	S.D.	Velocity								
•		Contrast	%89	Contrast	27%	Contrast	743%	Contrast	%7E	Contrast	27%	



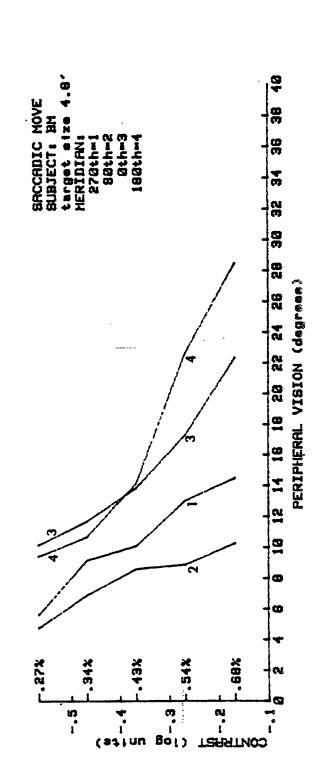
Mean Peripheral Vision - degrees from fovea

	:		180th Meridian		Subject: BM	1	Procedure #2	1	
		Velocity	-	2	4	8	12	16	1 20
	Contrast	mean	31.60	31.57	29.53	23.64	13,91	10.95	9.75
		S.D.	1,097	2,287	2,047	4,248	2,997	. 962	1,657
		mean	27.52	27.93	26.17	13,48	10,11	9.42	7,19
		S.D.	2,765	.535	1,997	1,145	.642	822	1,582
	Contrast	mean	15,12	13,37	16.17	11,11	7.74	6,49	4.59
		S.D.	877	.777	2,743	2,615	1,165	432	1,963
		mean	12,48	12,30	10,80	8,28	5.71	3.77	•75
14	34%	S.D.	• 092	029	. 593	1,460	1,923	845	1,233
8		mean	10,58	10.75	8.73	5.21	4.34	•39	-2,28
	27%	S.D.	1,000	545	. 887	1,460	1,933	870	896
		Velocity	1	7	4	8	12	16	20



Mean Peripheral Vision - degrees from fovea

	Subject:	BM	Procedure:	: #3	-	
	Contrast	889	54%	43%	34%	27%
270th	mean	14.49	13.03	10,10	9,16	5.64
Meridian	S.D.	760	1,049	1,047	570	151
90th	mean	10.27	8,89	8,61	6.91	7.4
Meridian	S.D.	.227	.371	, 211	. 567	• 413
0th	mean	22,33	17,30	13,83	11,68	10,15
Meridian	S.D.	.342	1,737	.727	,815	587
180th	mean	28.47	22,65	14.13	10,67	6.42
Meridian	S.D.	1.695	.983	1,768	1,24,5	• 583
	Contrast	289	54%	43%	34%	27%

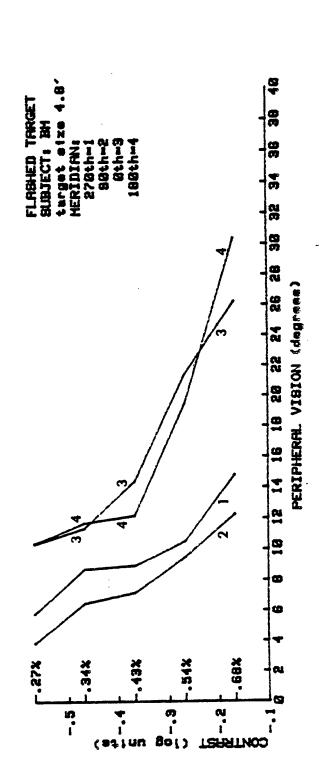


Mean Peripheral Vision - degrees from fovea

#

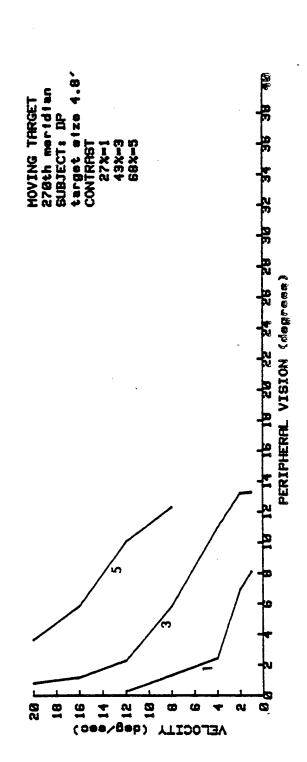
Procedure:

	Subject:	ВМ	Procedure:	##	l	
			94.7	1 %CV	708	27%
	Contrast	289	24%	42.6	2	7
. 270th	mean	14.80		8,96	8.75	5.84
Montation		. 299		539	315	27.70
OO+P	mean	12.27	9,51	7.20	6.52	3,89,
90CII		0,0			117	010
Mer la la la	mo an	26 23			11,38	10,38
otn		2 603			597	1,167
Meridian	S.U.	Z002			11 77	10.72
180th	mean	30.37		•	11. (K	1 077
Mortdian	S. D.	1.973			0 4 (6 0	40,000
	Contrast	68%	54%		04 kg	e / 7



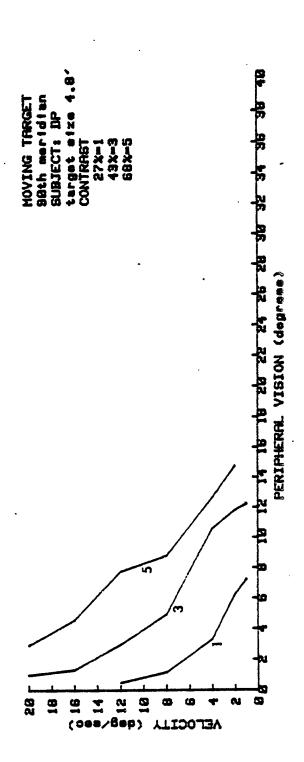
Mean Peripheral Vision - degrees from fovea

	i			1		1			1	•
	20	39.8	589	5	100	*42¢			20	3
ı	16	70 2	7,600	77,4	1_{ullet}^{17}	,201			16	or —
Procedure #1	12	40.40	10.10	1770 a	2,28	369	. 25	030	- 62-43	71
_	8	1,000	12,33	0),•	5.85	.227	1, 33	710	0179	x
Subject: DP	4				10.96	.425	2.1.5	710	1444	+
•	6	1			13,22	7.12	2007	0.75	707	2
270th Meridian	-	7			13.28	260	2029	ο το ο ο ο ο ο ο ο ο ο ο ο ο ο ο ο ο ο	102	1
ć.	11 - 1 - 1	Ve loci Ly	mean	S.D.	mean	0	.0.0	Mean	S.D.	Velocity
			Contrast	1007	Contrast		1.3%	Contrast	PLC	7777



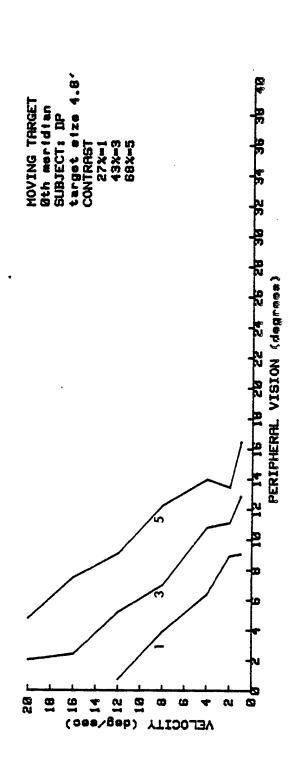
Mean Peripheral Vision - degrees from fovea

	i		I		I			
	02	2,95	• 167	1.00	•453			20
Ť	16	4.59	• 293	1.33	• 207			16
Procedure #1	12	7.78	•312	. 2.99	306	67.	.273	12
-	8	8,79	8/9*	4.95	. 225	1,16	. 222	80
Subject: DP	4	12,62	.183	10.56	.273	3,32	244	4
	2	14.73	398	11,80	444.	6.22	899	2
<u>90th</u> Meridian	-			12,23	444	7.22	310	
6	Velocity	mean	S.D.	mean	S.D.	mean	s.D.	Velocity
		Contrast	68%	Contrast	1.30 M	Contrast	Piloc	2) 12



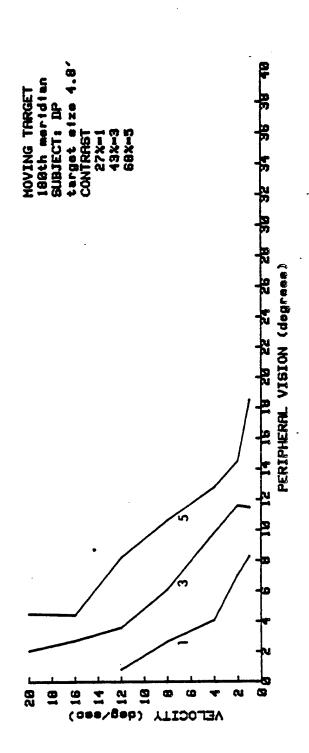
Mean Peripheral Vision - degrees from fovea

	20	4.77	777	2,00	1,290		00	7 7
ł	16	7.49	1,935	2,39	1,150			91
Procedure #1_	12	60°6	1,795	5.20	850	•74	• 565	12
-	œ.	12,25	• 770	2. 00	.512	3,88	1,225	8
Subject: DP_	4	13.97	883	10.79	• 430	. 6.36	.837	4
	1 2	13.44	1.088	11,12	1.627	8,92	1,063	5
Oth Meridian		16.45	.927	12,84	1,033	90.6	.878	
	Velocity	mean	S.D.	mean	S.D.	mean	S.D.	Velocity
	•	Contrast	68%	Contrast	113%	Contrast	27%	



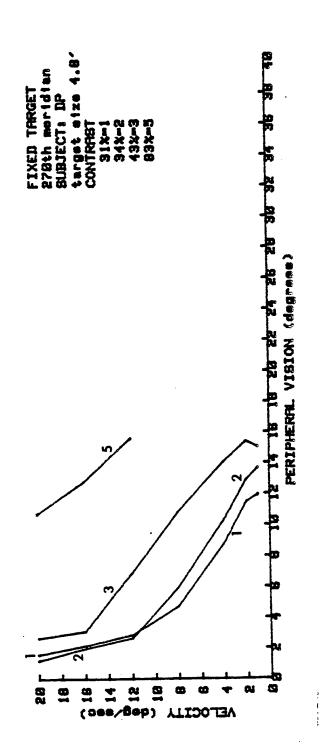
Mean Peripheral Vision - degrees from fovea

	20	1 52	4.00	837	70.0	000	10030			70	22	-	
1	16	0 - 1	4.43	1-415	2 73	٠٠٠ د د د د د د د د د د د د د د د د د د	575				9	} -	
Procedure #1	12		8.22	1,590	2 60	oo. • • • • • • • • • • • • • • • • • • •	1.03	C	200	1,815	12	-	
-	«		10.65	1.812	7.7	0•11	1.04	6/0	2,08	.877	0	• •	
Subject: DP	7	-	12,77	247		9.79	1, 33		7.0•4	009	-	+	
	, `	4	14.50	1 582	- 377	11,60	707	7,741	. †0°2	19		7	
180th Meridian	· .	-	18.79	070	700 07	11.17	7,00	507	8,26	0,48	و کرک	_	
-		Velocity	mean		3.U.	mean		3.0.	mean	0	3.0.	Velocity	
			Contract	250	%89	Contrast	250 12100	1,3%	Contrast		%). X		



Mean Peripheral Vision - degrees from fovea

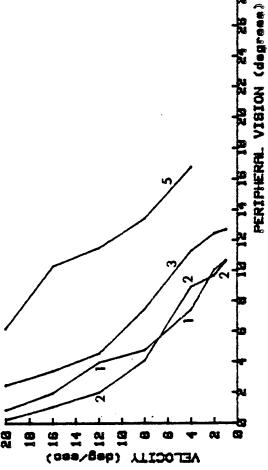
	20		ഹ	337			0	20	3,76	7	י מ	1	2	.369	20	
			10.76	• 3			C	•	•	1	_		1.(_	-	_
l	7	2	12,81	. 267			4.4	₹ 7• 11	•435	00 0	ו00	4777	2,17	.713	16) T
Procedure #2	1.0	ادِ	15.61	•			56	ر. 88°،	. 560	2/0	70.7	543	2.87	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	6475	71
	•	æ						10 . 80	00.7	777	5.45	679	1 773	\$07 •h	000	xo
Subject: DP	•	4						114.03	בייל	62/0	10.29	787	0 77	α• ()	• 402	4
ridian S		~						15,39	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	•433	12,89	205		11.47	488	2
270th Merid		_	•					1 5 03	17.00	. 188	13.65	1.1.5		11.93	.359	_
270		Valocity	Ve loci ty	mean	S.D.	mean			lledii	s.D.	mean		5.0.	mean	S.D.	Velocity
				Contrast	83%	Contrast			Contrast	1,30	Contract	collet as c	31%	Contrast	219	71/2



Mean Peripheral Vision - degrees from fovea

	50	6	19			7	65	3	70	5	6μ	20
	-	6.19				2.1			-	8		
	16	10.29	.481			3.40	307	1.07	167	1.97	.517	16
Procedure #2	12	11.52	.943			4.55	401	2.00	.357	3.96	. 220	. 12
DP Pro	8	13.44	. 591		•	7.47	777	4.09	196	4.77	.181	8
Subject: D	4	16.77	.247			11,29	.445	8,92	320	7.40	.787	4
lan	2					12,47	.324	89.6	.260	10.07	.277	2
90th Meridian	_					12,71	• 331	10.63	.257	10.67	.623	-
I	Velocity	mean	5.0.	mean	S.D.	mean	S.D.					Velocity
	1	Contrast	83%	Contrast		Contrast	43%	Contrast	34.76	Contrast	31%	

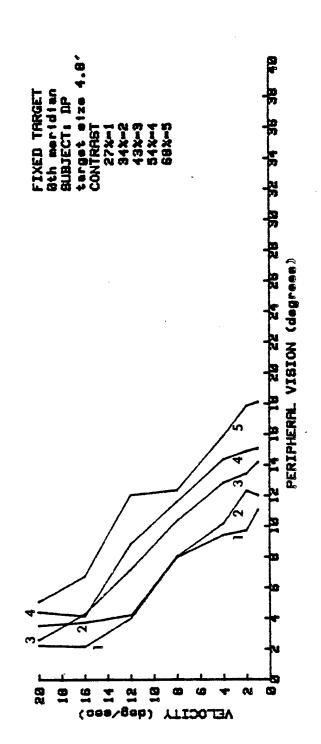
BOth meridian BUBJECT: DP FIXED TARGET target etze CONTRAST



Mean Peripheral Vision - degrees from fovea

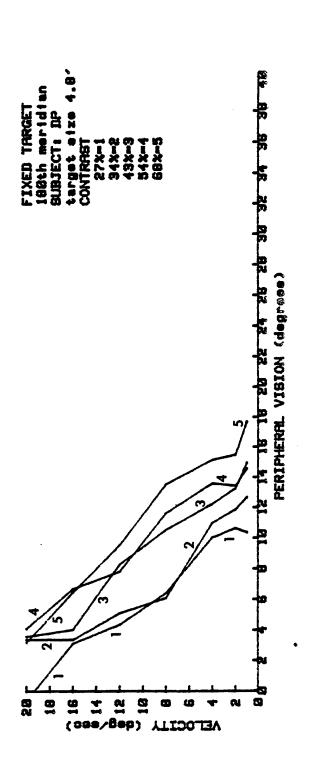
		Oth Meridian	iian	Subject:	DP	Procedure #2	ļ	
	Velocity	_	2	4	8	12	16	20
Contrast	mean	18,12	17.85	15.89	12,35	12,05	6.73	5.08
%89 ************************************	S.D.	. 8033	1,298	.457	.513	1.590	. 420	1.372
Contrast	mean	15.09	14,89	14.37	11,60	8,84	4.14	0,04
54%	S.D.	. 767	.873	.712	1,117	1,113	. 702	• 300
Contrast	mean	14,17	13.44	12,84	10,35	7,19	4.29	2,60
43%	S.D.	• 748	.318	1,018	1,323	1,663	.857	866
Contrast	mean	12,02	12,32	10,17	8.03	4.22	3.73	3.53
34%	S.D.	.635	1,005	•658	1,352	1.852	• 293	1,138
Contrast	mean	11.07	9.72	9.42	7,98	4.02	2,16	2,23
27%	S.D.	• 303	-747	• 532	2,622	1,048	.578	2,143
	Velocity	,	2	4	8	12	16	20

157



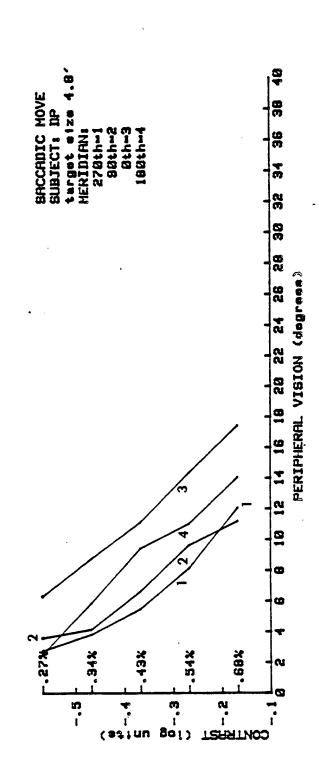
Mean Peripheral Vision - degrees from fovea

		ļ	1	l	1	1	1		1)	1	ļ
	20	81.6	1.377	60*7	1.028	3.55	1,068	3.37	2,423	- •62	2,378	20
ł	16	<i>₽</i> ††	1.072	89*9	2,398	4.01	1,528	3.36	2,215	3,11	1,312	16
Procedure #2	12	9.54	2,032	7.81	2,795	8.29	1.253	5.09	1.83	4.6.34	.947	12
DP Pro	8	13.53	.720	11.63	.795	10.53	.917	80*9	.982	0,40	1,508	8
Subject: D	4	15,12	.772	13.57	.752	12,21	.867	10.96	.957	10.01	1.430	4
ian	8	15.47	. 167	13.42	866	13.25	1,318	11.87	1,172	10.64	• 582	2
180th Meridian	-	17.67	505	14.56	.558	14.94	.597	12.67	280	10,36	.653	-
180	Velocity	mean	S.D.	mean	S.D.	mean	S.D.	mean	S.D.	mean	S.D.	Velocity
:		Contrast	%89	Contrast	24%	Contrast	43%	Contrast	34%	Contrast	27%	



Mean Peripheral Vision - degrees from fovea

	Subject:	DP	Procedure:	: #3		
	Contrast	%89	54%	43%	34%	27%
270th	mean	12,07	8,13	5.50	3,83	2,77
Meridian	5.0.	.150	434	•651	.373	207
90th	mean	11,20	69.63	499	4.16	3.60
Meridian	S.D.	.633	.244	• 476	, 256	454
0th	mean	17.43	14,35	11,13	8.77	6.32
Meridian	S.D.	.383	. 488	099•	009•	• 368
180th	mean	14.05	11,03	9.43	5.87	2,55
Meridian	S.D.	.745	.128	1,708	•605	•415
	Contrast	%89	54%	43%	34%	27%



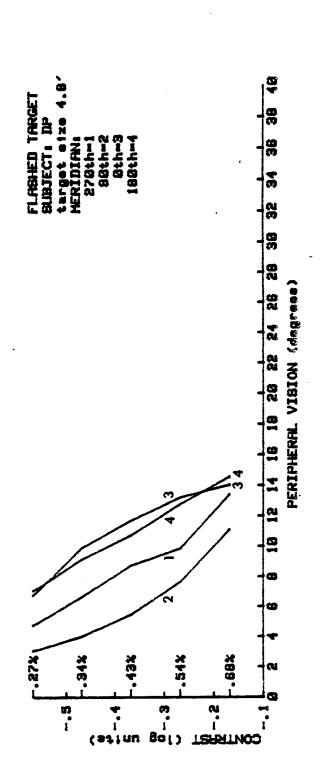
Mean Peripheral Vision - degrees from fovea

Procedure:

DP

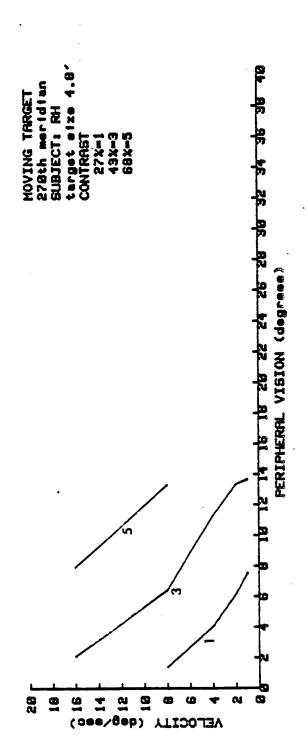
Subject:

	•				1	
	Contrast	289	54%	43%	34%	27%
270th	mean	13.40	98 * 6	8.74	99*9	4.77
Meridian	5.0.	. 314	077	946	297	069•
90th	mean	11.09	7.64	5.47	4.01	3.06
Meridian	S.D.	. 34.1	. 4.27	.193	. 181	999
oth	mean	14.03	13,22	11,70	06.6	6.78
Meridian	S.D.	1,183	. 522	702	.243	.270
180th	mean	14.57	12,77	10,73	9.15	7,08
Meridian	S.D.	407	.515	. 562	.658	069•
	Contrast	%89	54%	43%	34%	27%



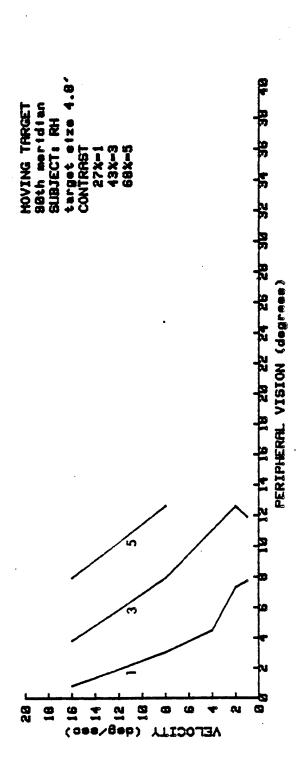
Mean Peripheral Vision - degrees from fovea

$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		- 1	270th Meridian		Subject: RH		Procedure #1	ı	
mean 13.31 7.94 S.D. 13.67 13.33 11.26 6.41 2.11 S.D. 633 84,3 653 1.016 2.11 S.D. 633 84,3 6.53 1.38 402 S.D. 165 1.38 1.38 1.02 Velocity 1 2 4 8 12 16		Ve locity	1 1	2	4	8	12	16	20
S. U. $3.0.$ 3.67 13.33 11.26 6.41 2.11 Mean 7.52 6.16 4.05 1.38 1.016 1.02 S. D. 165 3.80 5.04 5.06 1.38 Velocity 1 2 4 8 12 16	•	mean				13,31		₹6°2	
13.67 13.33 11.26 6.41 2.11 633 .843 .653 1,016 .402 7.52 6.16 4.05 1.38 .504 .506 165 .380 .504 .506 12 16		s.u.				• 76 <i>l</i> +		• 369	
S.D. 633 843 653 1,016 ,402 mean 7,52 6,16 4,05 1,38 ,504 ,504 ,504 ,506 16 S.D. 1 2 4 8 12 16		mean	13.67	13,33		6,41		2,11	
7.52 6.16 4.05 1.38 165 380 504 506 12 16 1 2 4 8 12 16		S.D.	633	. 843		1,016		.402	
165 280 504 506 12 16 16		mean	7.52	6.16	_	1,38	•		
1 1 2 4 8 12 16		S.D.	• 165	• 380		• 506			
		Velocity	1	2	4	89	12	16	20



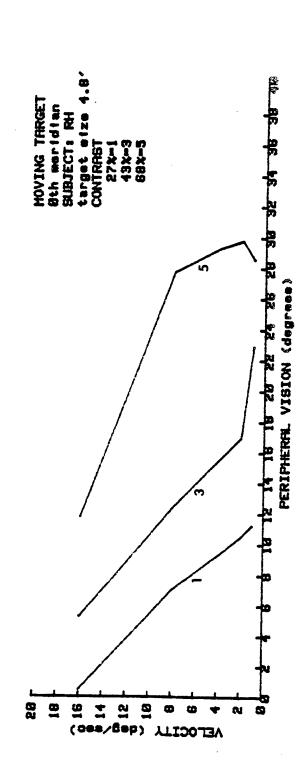
Mean Peripheral Vision - degrees from fovea

	90th	Meridian	, •	Subject: RH		Procedure #1	1.	
ve 1001 Ly	-		7	4	8	12	16	50
mean					12.63		70 71	
S.D.					1 031		27.2	
mean	11 8	ę	12 50	11 0	7 00		2222	
S.D.	7	3	1~• // F F T 1	7704	**************************************		7.03	
9000	4	# 75	1777	1000	±7(4		• I.//	
		74	7.31	67.7	3.06		- 82	
5.0.		338	. 585	. 505	077		869	
Velocity			4		*		2000	
62120121	-	-	3	*	~	77	9	20
								2



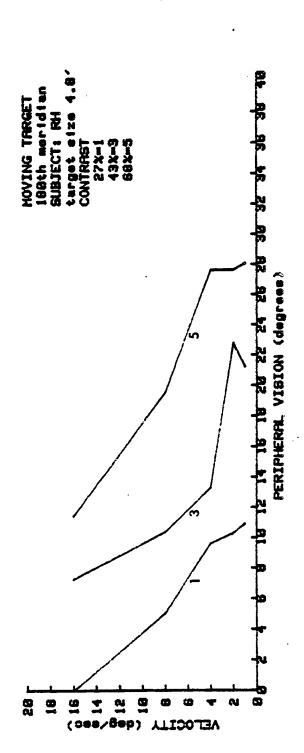
Mean Peripheral Vision - degrees from fovea

Subject: RH Procedure #1	1 4 1 8 1 12 1 16 1 20	29.28 27.73 11.79	19.10	1.518	9,28 7,07	1,308	
Oth Meridian	1	28.57	22.74	5,510	11,24	1,033	_
	Velocity	. mean S.D.	mean	S.D.	mean	S.D.	Velocity
		contrast 68%	Contrast	43%	Contrast	27%	



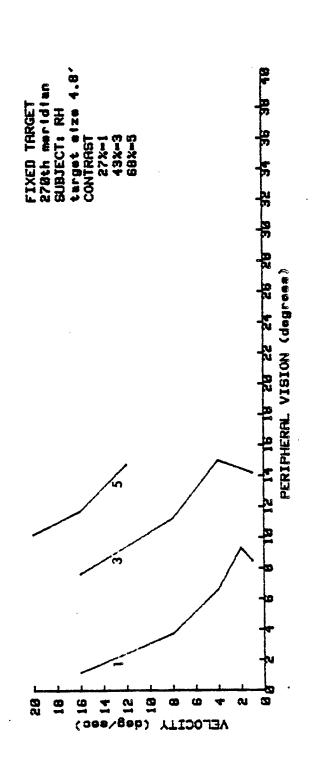
Mean Peripheral Vision - degrees from fovea

	18	180th Meridian		Subject: RH	į	Procedure #1	1	
	Velocity	1 1	, 7	4	æ	12	16	20
Contrast	mean	28.07	77.64	27.62	19.57		11.46	
989	S.D.	1,533	1,282	2,142	4.125		1,963	
Contrast	mean	21.24	22,80:	13,28	10,40		7.29	
4.3%	S.D.	2,637	7,16	1,682	777		2,300	
Contrast	mean	10,91	10,30	9.62	4.07		70-	
27%	S.D.	1,023		1.477	1,233		1,740	
•	Velocity	1	2	4	8	12	16	20



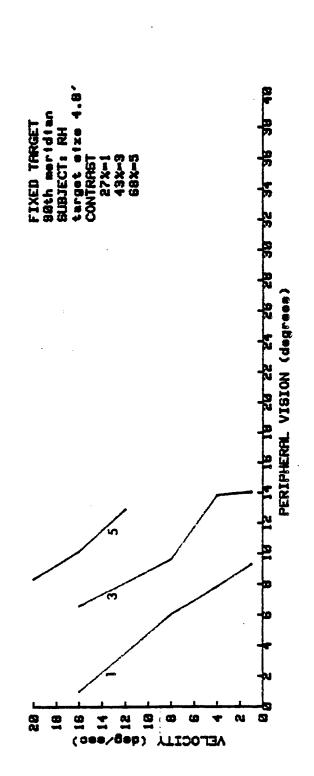
Mean Peripheral Vision - degrees from fovea

	20	10.23	720					20	
1	16	11.75	292	7 65	965	1 10	252	16	-
Procedure #2	12	11. 75	1.151					13	- -
1	80		المسيد	3, 6	11.25	3778	3.72		o
Subject: RH	4				15,00	L		1	4
	^	1					9.32	*0.7¢	-
270th Meridian		•			14,19	1,273	8,49	628	1
27		Ve loci Ly	mean	5.U.	mean	s.D.	mean	s.u.	Velocity
			Contrast	787	Contrast	1,39	Contrast	pho	



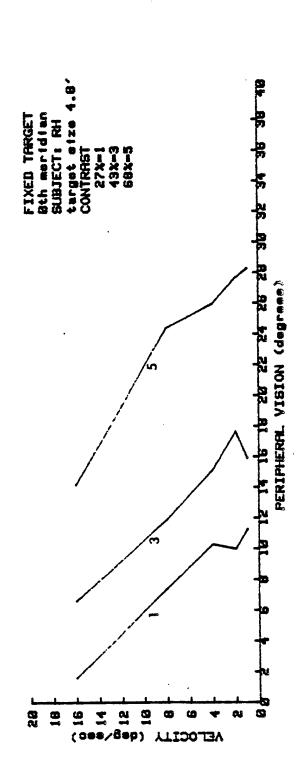
Mean Peripheral Vision - degrees from fovea

	'	90th Meridian		Subject: RH		Procedure #2	1	
•	Velocity	1	,2	4	8	12	91	50
Contrast	mean					12,91	19,16	8,35
68%	5.U.					897	797	391
Contrast	mean	14.05	•.	13.84	89.6		6, 59	
1.3%	5.0.	.653		344	699		765	
Contrast	mean	9.29		7,84	6.05		1.01	
27%	S.D.	. 573		.771	.741		312	
	Velocity	-	7	4	8	12	16	20
	•)) -



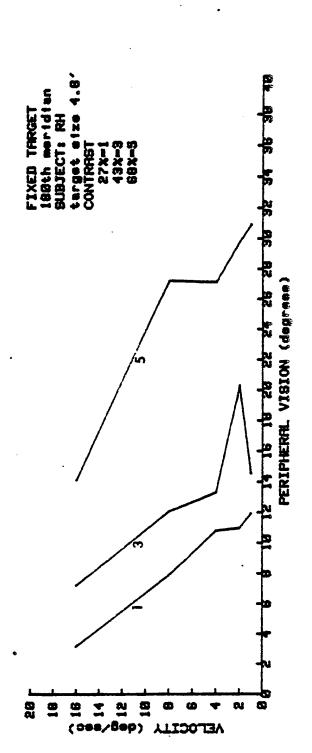
Mean Peripheral Vision - degrees from fovea

	20				50
1.	16	14.19 1.917	6.62 .590	1.62 740	16
Procedure #2	12				12
 1	8	24.40	11.90	7.40	8
Subject: RH	4	-	+	10,28	†
Meridian	2	27.64	17.64	9.97	76.57
Oth Meri		28.24	15.91	11.24	7607
1	Valocity	mean	mean	me an	Velocity
		Contrast	68% Contrast	L ₃ % Contrast	27%



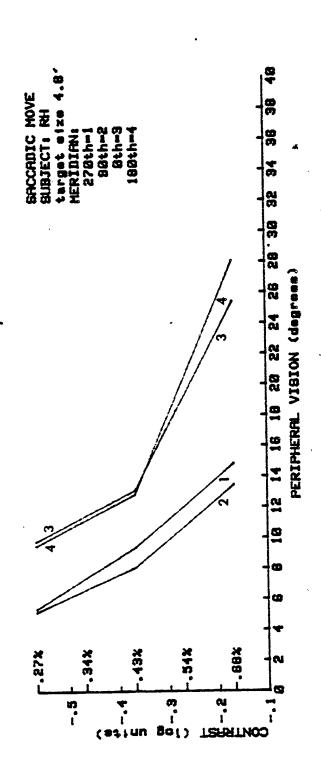
Mean Peripheral Vision - degrees from fovea

		180th Meridian		Subject: RH	1	Procedure #2	1	٠
	Velocity	-	, 2	4	8	12	16	20
Contrast	mean	30.91	29.80	27.12	27.23		14.12	
68%	S.D.	1.427	1.095	2,398	07/6•		2,230	
Contrast	mean	14.57	20,30	13,28	12.07		7.22	
1.3d	S.D.	2,133	2,500	1,453	1.953		1,140	
Contrast	mean	11.91	10.97	10,78	7.90		3.16	
pho	S.D.	087	.518	1,105	1.157		2,807	
27 3	Velocity		2	4	8	12	16	50
	•		•	•				



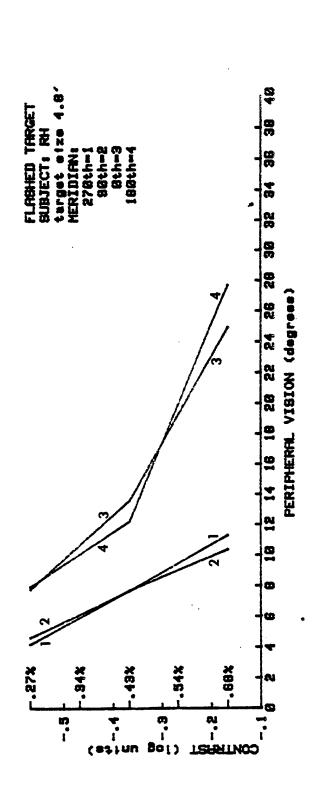
Mean Peripheral Vision - degrees from fovea

	Subject:	RH	Procedure: #3	: #3	1	
	Contrast	%89	54%	43%	34%	27%
270th	mean	14,81		9.37		5.40
Meridian	5.0.	. 383		. 739		4.56
90th	mean	13.43		8.07		5.20
Meridian	S.D.	643		301		, 383
0th	mean	25,38		13.10		9,80
Meridian	S.D.	905		.672		.443
180th	mean	28,03		12,82		9,52
Meridian	S.D.	1,105		• 712		. 520
	Contrast	%89	24%	43%	34%	27%



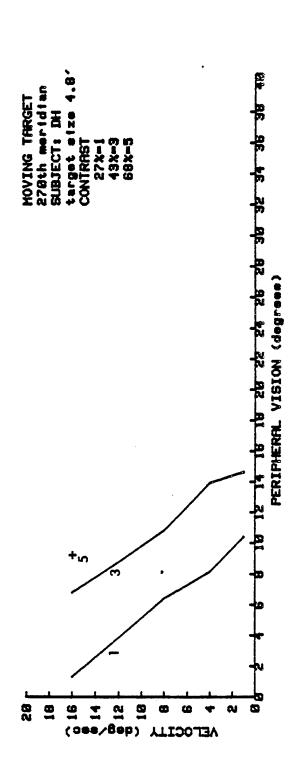
Mean Peripheral Vision - degrees from fovea

	Subject:	RH	Procedure:	##	1	
	Contrast	1 889 1	54%	43%	34%	27%
270th	mean	11,29		7.68		4.63
Meridian	S.D.	528	•	.876		•459
90th	mean	10,37		7.71		7.20
Meridian	S.D.	1,031		• 308		•313
0th	mean	24.92		13,60	•	7.78
Meridian	S.D.	.622		1,133		• 590
180th	mean	27.68		12,22		7.95
Meridian	S.D.	1,080		. 578		•972
	Contrast	%89	24%	43%	34%	27%



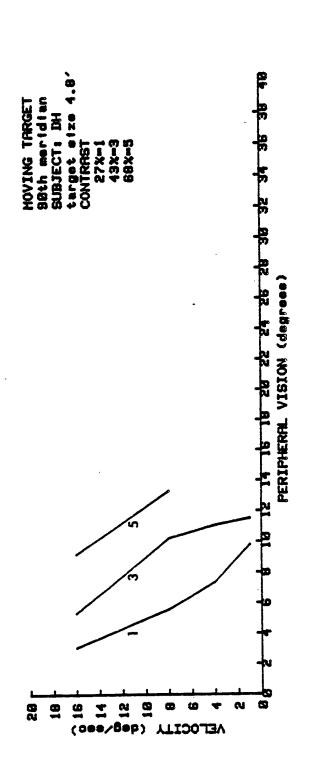
Mean Peripheral Vision - degrees from fovea

	1 20							20
1	16	12,23	, 883	6.78	95,5	4.31	0T2•	16
Procedure #1	12							12
	8		90	10,00	0747	681	100	∞
Subject: DH	4	•	T	+7.70	R. 11.	532		-
	. 2						6	7
270th Meridian			11, 63	590	10, 38	396	-	- -
12	Velocity	S.D.	mean	S.D.	mean	S.D.	Velocity	f
	Contract	%89	Contrast	43%	Contrast	27%		



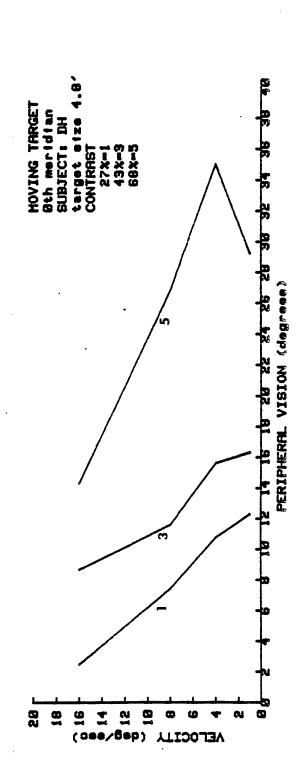
Mean Peripheral Vision - degrees from fovea

	20				50
l	16	9.22	5.37	3.09	16
Procedure #1_	12	:			12
ı	8	13,32	10, 23	5.59	8
Subject: DH	4		11.06	7.36	þ
	2				2
90th Meridian			11.51	9.79	-
9	Velocity	mean S.D.	mean S.D.	mean S.D.	Velocity
e		Contrast	Contrast 43%	Contrast 27%	



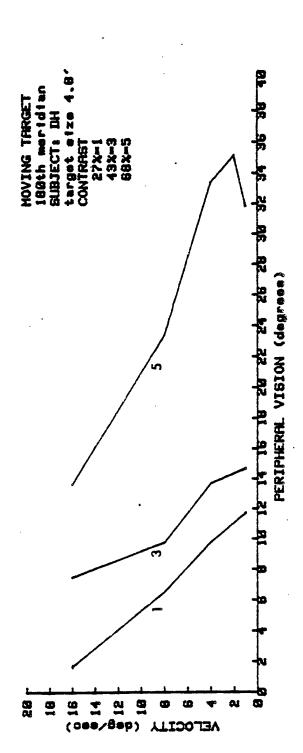
Mean Peripheral Vision - degrees from fovea

	20	20
1	16 14,31 1,442 8,68 630 2,48	16
Procedure #1	12	12
	8 26.86 2.342 11.62 1.013 7.46	8
Subject: DH	4 35.03 2.662 15.60 10.77	4
	2	2
Oth Meridian	29, 25 4, 985 16, 32 11, 397 12, 29	1 1
	Velocity mean S.D. mean S.D. mean S.D.	Velocity
	Contrast 68% Contrast 43% Contrast 27%	



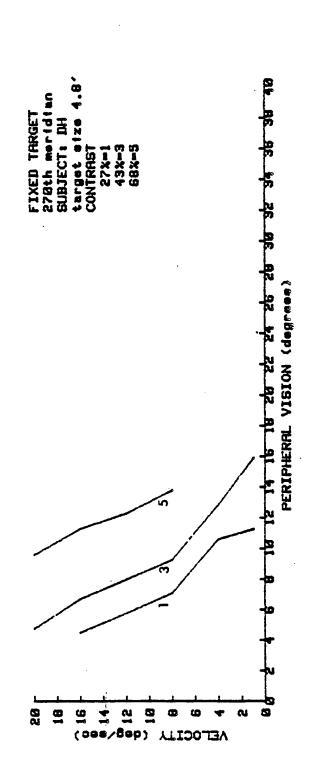
Mean Peripheral Vision - degrees from fovea

	•	180th Meridian		Subject: DH	1	Procedure #1	j	
	Velocity	_	, 2	4	8	12	16	20
Contrast	mean	31,85	35.15	33.40	23,39		13,65	
%89	S.D.	1,741	006	2,520	3,150		• 402	
Contrast	mean	14.69	٠.	13,70	9.77		7.48	
11.3%	S.D.	9638		.777	1,767		1,023	
Contrast	mean	11,72		9.77	67*9		1,68	
27%	S.D.	.773		.720	.712		1,128	
	Velocity	-	5	4	8	12	16	20



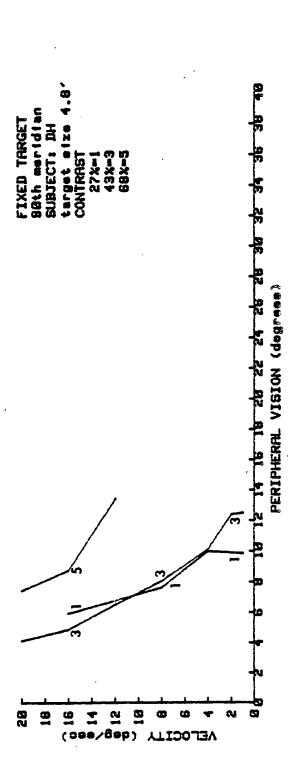
Mean Peripheral Vision - degrees from fovea

	20	6, 59	.559	144	4• 1 1 680	/200		30	27	-
1	16	11, 30	759	1,1	. 1/90	• 007	4.49	1.00y	16	-
Procedure #2	12	12 30	14,70	7100	8,00 ,7,00	• 207			12	
_	@	42.00	13.00	000	9.27	979	4.09	•620	8	-
Subject: DH	4				12,84	• 390	10,60	361	V	•
•	6	4					•		6	1
270th Meridian	-	-			15.90	.657	11.27	360		→
-41		Velocity	. mean	S.D.	mean		mean			Ve loci Ly
			Contrast	680%	Contrast	pc	Contrast	<i>p</i>	6.1.79	



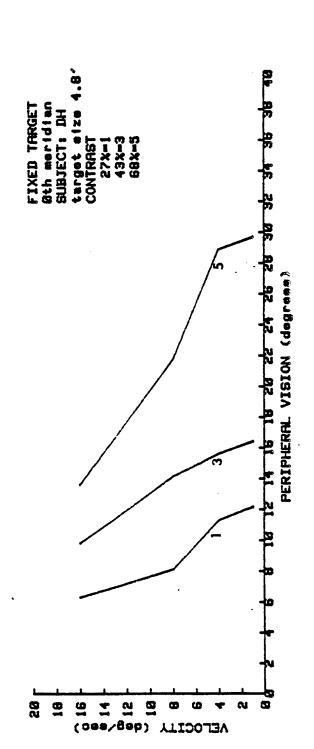
Mean Peripheral Vision - degrees from fovea

			ļ		ļ			
	20	77° 1	400°	4.14	.267			07
i	16	B.76	• 300	18.4	•774	5.93	• 536	16
Procedure #2	12	13,43	404	6.51	• 543			12
_	&			90*8	• 556	7.63	•731	8
Subject: DH	4		•	10,13	1.057	10,00	• 300	4
	, ²			12,39	1.057		:	2
90th Meridian	-			12,50	1,187	98.6	.133	ī
ł	Velocity	mean	5.0.	mean	S.D.	mean	S.D.	Velocity
		Contrast	%89	Contrast	1,3%	Contrast	27%	17



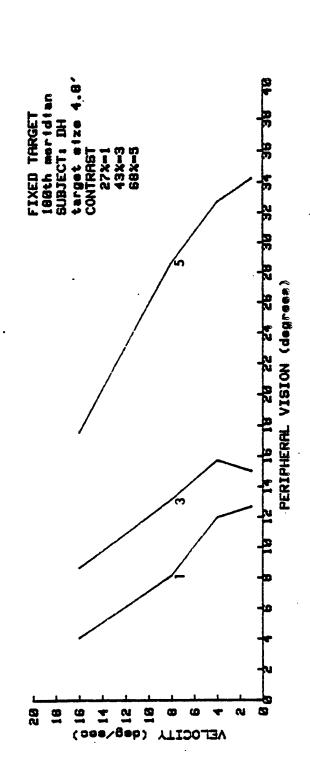
Mean Peripheral Vision - degrees from fovea

	20				20
1	16	13,61	9.81 1.252	6,31	16
Procedure #2	12				12
	8	21.77	14.14	8,12	8
Subject: DH	4	28.90	15.62	11,30	4
	2				2
Oth Meridian	1	29.69	16.42	12,17	1-4-1-1
I	Velocity	mean	mean S D	mean	Velocity
•		Contrast	Contrast	Contrast	6 <u>7</u> 7



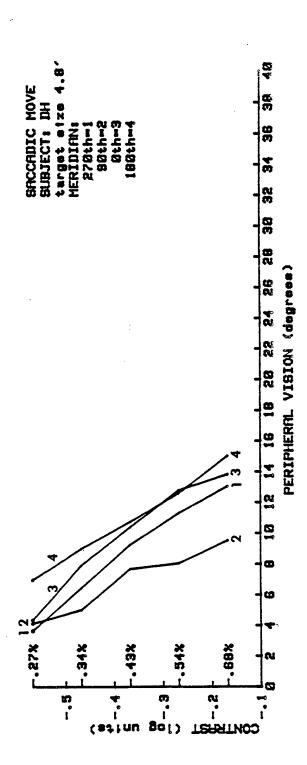
Mean Peripheral Vision - degrees from fovea

	20				0Z
l	16	1 7. 60 2.477	8.68 1.445	4.08 .912	16
Procedure #2	12				12
ı	8	28 . 71 2.302	13.17 1.535	8,16 2,632	&
Subject: DH	1 4	32.73	15.73	11.97	4
I	, 2				2
180th Meridian		34.24	15.02	12.69	
	Velocity	mean S.D.	mean S.D.	mean S.D.	Velocity
		Contrast	Contrast	Contrast	178



Mean Peripheral Vision - degrees from fovea

	Subject:	DH	Procedure: #3	: #3	1	
	Contrast	%89 1	54%	43%	34%	27%
270th	mean	13,04	11.29	9.24	6.43	3.63
Meridian	5.0.	1,183	• 293		1,041	• 626
90th	mean	9.53	8,03		66.4	4•10
Meridian	S.D.	.553	•603		• 594	• 300
0th	mean	13,82	12,78		7.90	4•33
Meridian	S.D.	.803	•397		• 977	•492
180th	mean	15.02	12,58		8.98	6.95
Meridian	S.D.	.757	8479*		• 560	. 590
	Contrast	%89	24%		34%	27%
		,	•			



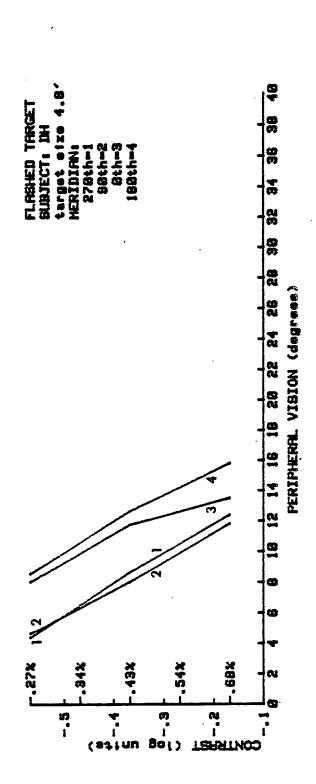
Mean Peripheral Vision - degrees from fovea

Procedure:

DH

Subject:

Contra mean S.D.	12,41 12,41	68% 41 406	54%	43% 8.67	34%	27% 4.43 4.43
an D.	11.8	3 84		8.04 320		4.69
an D.	13.5	2 98		11.77 1.238		8.05 1.112
ne (15.8	:2 :28		12,67 ,623		8,58 673
ıtra	ıst	%89	54%	43%	34%	27%



APPENDIX D

Four Primary Meridian Plots for Each Subject and Procedure

